

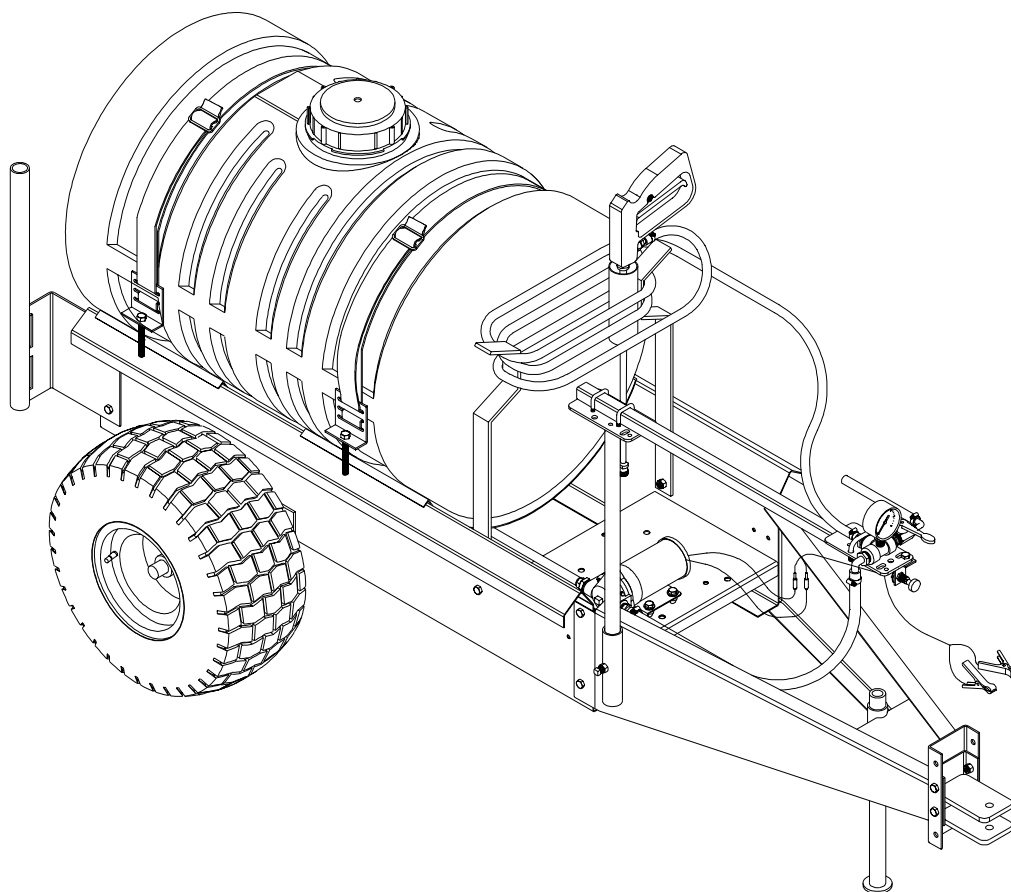
Demco manufacturing
Dethmers Manufacturing Company

DOING OUR BEST TO PROVIDE YOU THE BEST

55 GALLON LAWN & GARDEN SPRAYER OPERATORS MANUAL

ASSEMBLY
CALIBRATION
OPERATION
REPLACEMENT PARTS

READ complete manual CAREFULLY
BEFORE attempting operation.



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www.demco-products.com

Thank you for purchasing a Demco sprayer. We feel you have made a wise choice and hope you are completely satisfied with your new sprayer. If you have any questions regarding the applications of certain solutions or chemicals, contact your chemical supplier and follow chemical manufacturer recommendations as well as all licensing and use restrictions or regulations.



To prevent serious injury or death

- ï Refer to chemical supplier and manufacturer recommendations and all licensing restrictions or regulations.
- ï Always wear recommended protective clothing when working with chemicals or sprayer.
- ï Dispose of all unused chemicals or solutions in proper and ecologically sound manner. Improper use can injure people, animals, plants and soil.

GENERAL INFORMATION

1. Unless otherwise specified, high-strength (grade5) (3 radial-line head markings) hex head bolts are used throughout assembly of this sprayer.

2. Whenever terms "**LEFT**" and "**RIGHT**" are used in this manual it means from a position behind sprayer and facing forward.
3. When placing a parts order, refer to this manual for proper part numbers and place order by **PART NO., DESCRIPTION, and COLOR.**

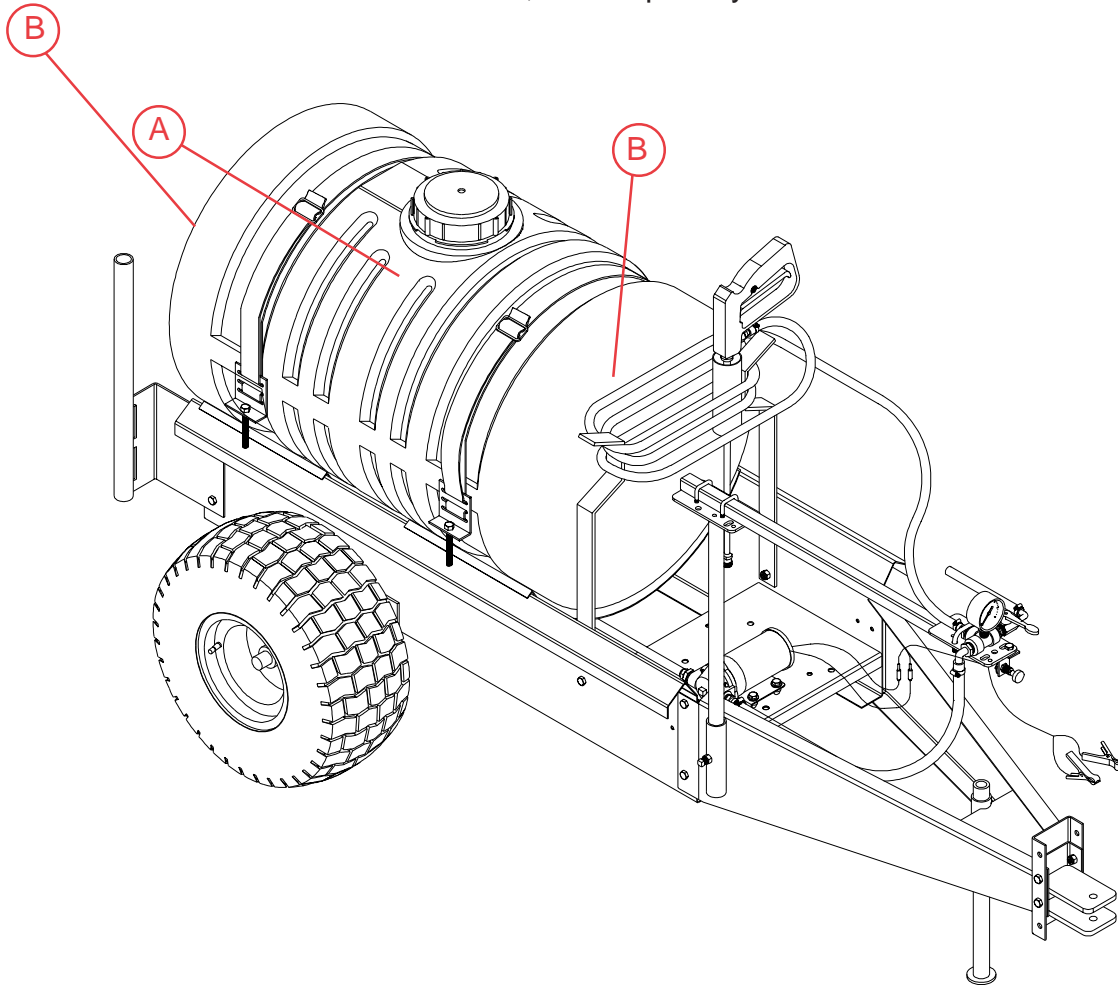
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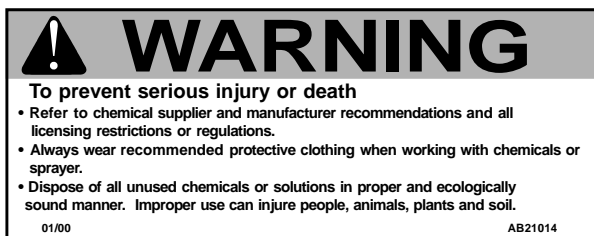


SAFETY SIGN LOCATIONS

Types of safety sign and locations on equipment are shown in illustration below. Good safety requires that you familiarize yourself with various safety signs, type of warning, and area or particular function related to that area, that requires your SAFETY AWARENESS.



A. AB21014 - Warning: Refer to chemical supplier and manufacturer Qty. 1



B. AA21012 - Small Demco Qty. 2



BOLT TORQUE

TORQUE DATA FOR STANDARD NUTS, BOLTS, AND CAPSCREWS.

Tighten all bolts to torques specified in chart unless otherwise noted. Check tightness of bolts periodically, using bolt chart as guide. Replace hardware with same grade bolt.

NOTE: Unless otherwise specified, high-strength Grade 5 hex bolts are used throughout assembly of equipment.



Torque Specifications

Bolt Torque for Standard bolts *

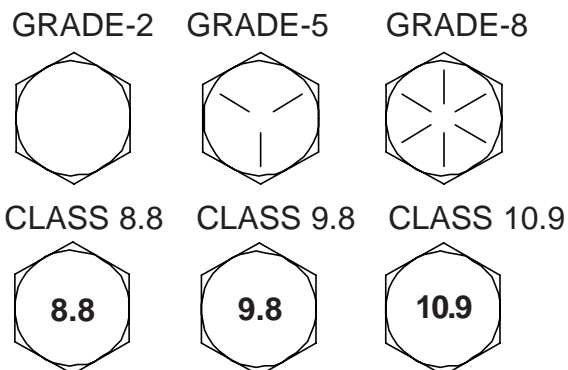
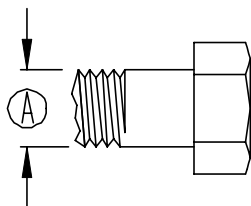
"A"	GRADE 2		GRADE 5		GRADE 8	
	lb-ft	(N.m)	lb-ft	(N.m)	lb-ft	(N.m)
1/4"	6	(8)	9	(12)	12	(16)
5/16"	10	(13)	18	(25)	25	(35)
3/8"	20	(27)	30	(40)	45	(60)
7/16"	30	(40)	50	(70)	80	(110)
1/2"	45	(60)	75	(100)	115	(155)
9/16"	70	(95)	115	(155)	165	(220)
5/8"	95	(130)	150	(200)	225	(300)
3/4"	165	(225)	290	(390)	400	(540)
7/8"	170	(230)	420	(570)	650	(880)
1"	225	(300)	630	(850)	970	(1310)

Bolt Torque for Metric bolts *

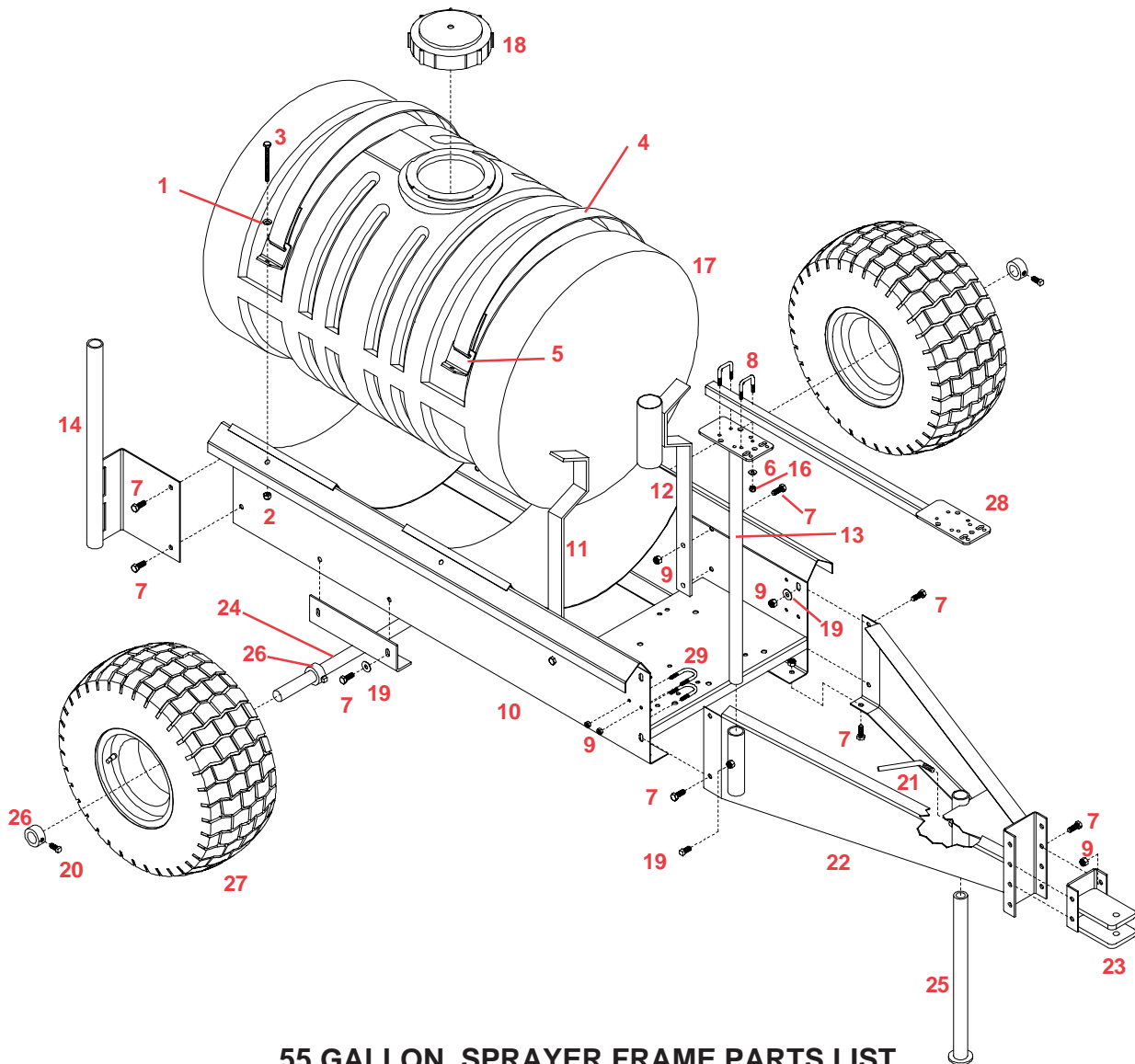
"A"	CLASS 8.8		CLASS 9.8		CLASS 10.9	
	lb-ft	(N.m)	lb-ft	(N.m)	lb-ft	(N.m)
6	9	(13)	10	(14)	13	(17)
7	15	(21)	18	(24)	21	(29)
8	23	(31)	25	(34)	31	(42)
10	45	(61)	50	(68)	61	(83)
12	78	(106)	88	(118)	106	(144)
14	125	(169)	140	(189)	170	(230)
16	194	(263)	216	(293)	263	(357)
18	268	(363)	--	--	364	(493)
20	378	(513)	--	--	515	(689)
22	516	(699)	--	--	702	(952)
24	654	(886)	--	--	890	(1206)

Torque figures indicated are valid for non-greased or non-oiled threads and heads unless otherwise specified. Therefore, do not grease or oil bolts or capscrews unless otherwise specified in this manual. When using locking elements, increase torque values by 5%.

* GRADE or CLASS value for bolts and capscrews are identified by their head markings.



55 GALLON SKID MOUNT SPRAYER WITH TR55CB (TRAILER KIT)



55 GALLON SPRAYER FRAME PARTS LIST

REF. NO.	PART NO.	QTY. REQD	DESCRIPTION
-	5316	2	50" Strap Assembly
1.	00004	2	5/16" Flatwasher
2.	02802	2	5/16"-18 UNC Nylon Insert Locknut
3.	04352	2	5/16"-18 UNC x 4" F.T. Hex Hd. Bolt
4.	04353	-	50" Nylon Strap Black
5.	05785-95	2	Small Strap Anchor - 1-3/4" Strap
6.	00214	4	1/4" Flatwasher
7.	00907	8	3/8"-16 UNC x 1" Hex Head Bolt
8.	00955	2	1/4"-20 UNC x 1" Round U-Bolt
9.	02592	12	3/8"-16 UNC Nylon Insert Locknut
10.	02625-10	1	Trailer Main Frame
11.	02630-10	1	Right Hose Storage Bracket
12.	02631-10	1	Left Hose Storage Bracket
13.	02632-10	1	Control Valve Mount
14.	02633-10	1	Right Boom Mount
15.	02634-10	1	Left Boom Mount (not shown)
16.	02772	4	1/4"-20 UNC Nylon Insert Locknut
17.	P55 23	1	55 gal. Poly Tank
-	P55 23A	1	55 gal. Poly Tank w/ Agitation Installed
18.	PL5A	1	5" dia. Lid w/ O-ring
20.	00095	1	3/8-16 UNC x 3/4" Sq. Hd. Set Screw
29.	02529	2	3/8"-16 UNC x 2-1/2" Round U-Bolt

REF. NO.	PART NO.	QTY. REQD	DESCRIPTION
-	TR55CB	-	55 Gallon Trailer Kit
19.	00059	8	3/8" Flatwasher
20.	00095	4	3/8-16 UNC x 3/4" Sq. Hd. Set Screw
7.	00907	14	3/8"-16 UNC x 1" Hex Head Bolt
21.	01404-95	1	Lock Handle
9.	02592	14	3/8"-16 UNC Nylon Insert Locknut
22.	02626-10	1	Tongue
23.	02627-10	1	Clevis Hitch
24.	02628-10	1	Axle
25.	02629-10	1	Safety Stand
26.	02635-95	4	Wheel Space Collar
27.	TW18X8	2	18" x 9-1/2" x 8", 2 ply High Flotation Tire and Hub
-	02642	1	Bearing (only)
-	02643	2	Retainer (only)
28.	02669-10	1	Valve Mount (red)

Please order replacement parts by **PART NO.**, **COLOR**, and **DESCRIPTION**.

This exploded view diagram illustrates the assembly of a portable sprayer. The main components are shown in their relative positions for assembly. The tank (1) is the central cylindrical component with a handle (2) and a pump mechanism (3). The pump is connected to a hose (4) which leads to a spray wand (5). The tank is mounted on a frame with a large tire (6) and a smaller wheel (7). The frame includes a handle (8) and a support structure (9). The diagram includes numerous numbered callouts (1-35) pointing to specific parts such as bolts, nuts, washers, and connectors. A cap (33) is shown for the tank's fill port. The spray wand (5) has a trigger gun (13) and a hose (14) attached. The pump mechanism (3) is connected to the tank (1) via a hose (4). The frame (9) supports the tank (1) and the tire (6). The handle (8) is used to operate the pump (3). The spray wand (5) is used to apply the liquid from the tank. The diagram shows the assembly of the sprayer from the tank and pump to the frame and spray wand.

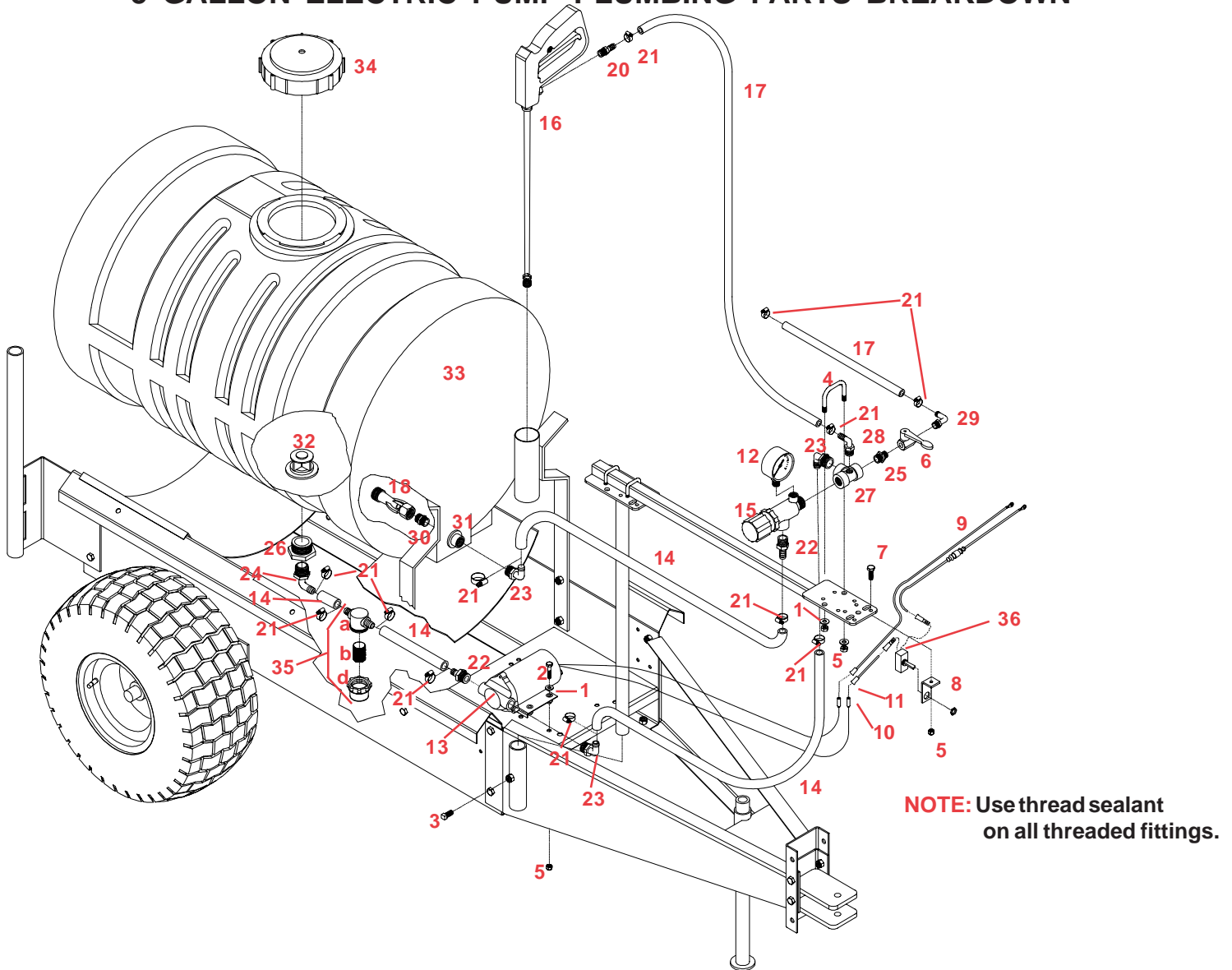
REF. NO.	PART NO.	QTY. REQD	DESCRIPTION
1.	00214	6	1/4" Flatwasher
2.	00336	4	1/4"-20 UNC x 1-1/4" Hex Head Bolt
3.	00907	1	3/8"-16 UNC x 1" Hex Head Bolt
4.	00955	1	1/4"-20 UNC x 2" Rd. U-bolt
5.	02772	7	1/4"-20 UNC Nylon Insert Locknut
6.	03900	1	3/8" FPT x 3/8" FPT Valve
7.	04055	1	1/4"-20UNC x 1" Hex Head Bolt
8.	04755-95	1	Switch Mount
9.	04764	1	10' Wire Harness
10.	05020	2	Male Bullet Connector
11.	05021	2	Female Bullet Connector
12.	120RB	-	1/2" I.D Rubber Hose
13.	30L 22425 18	1	18" Hand Spray Wand
14.	380RB	-	3/8" I.D. Rubber Hose
16.	5500 6PP	1	Adjustable Tip
17.	60GB	1	60 lb. Pressure Gauge
18.	8000 543 150	1	12 Volt Electric Pump
19.	8027	1	Swivel Nut
20.	8079NY	1	50 Mesh Poly Strainer
21.	A1238	1	1/2" MPT x 3/8" Hose Barb

REF. NO.	PART NO.	QTY. REQD	DESCRIPTION
22.	A1438	1	1/4" MPT x 3/8" Hose Barb Fitting
23.	B6H	8	3/8" Hose Clamp SS
24.	BEL1212	1	1/2" MPT x 1/2" Hose Barb Elbow
25.	BEL3412	1	3/4" MPT x 1/2" Hose Barb Elbow
26.	BM1238	1	1/2" MPT x 3/8" Reducer Nipple
27.	BTT12G	1	1/2" FPT Tee (Tapped for Gauge)
28.	EL3812	1	3/8" MPT x 1/2" Hose Barb Elbow
29.	EL3838	1	3/8" MPT x 3/8" Hose Barb Elbow
30.	K8400 1/2	1	1/2" Hose Barb
31.	NB1614	1	1/4" MPT x11/16" MPT Strainer Fitting
32.	P55 23	1	55 Gallon Poly Tank
33.	PL5A	1	5" dia. Lid w/ O-ring
34.	RB3814	1	3/8" MPT x 1/4" FPT Reducer Fitting
35.	05004	2	Female Push on Connector (connects to back of toggle switch)

Please order replacement parts by PART NO. and DESCRIPTION.

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5 GALLON ELECTRIC PUMP PLUMBING PARTS BREAKDOWN

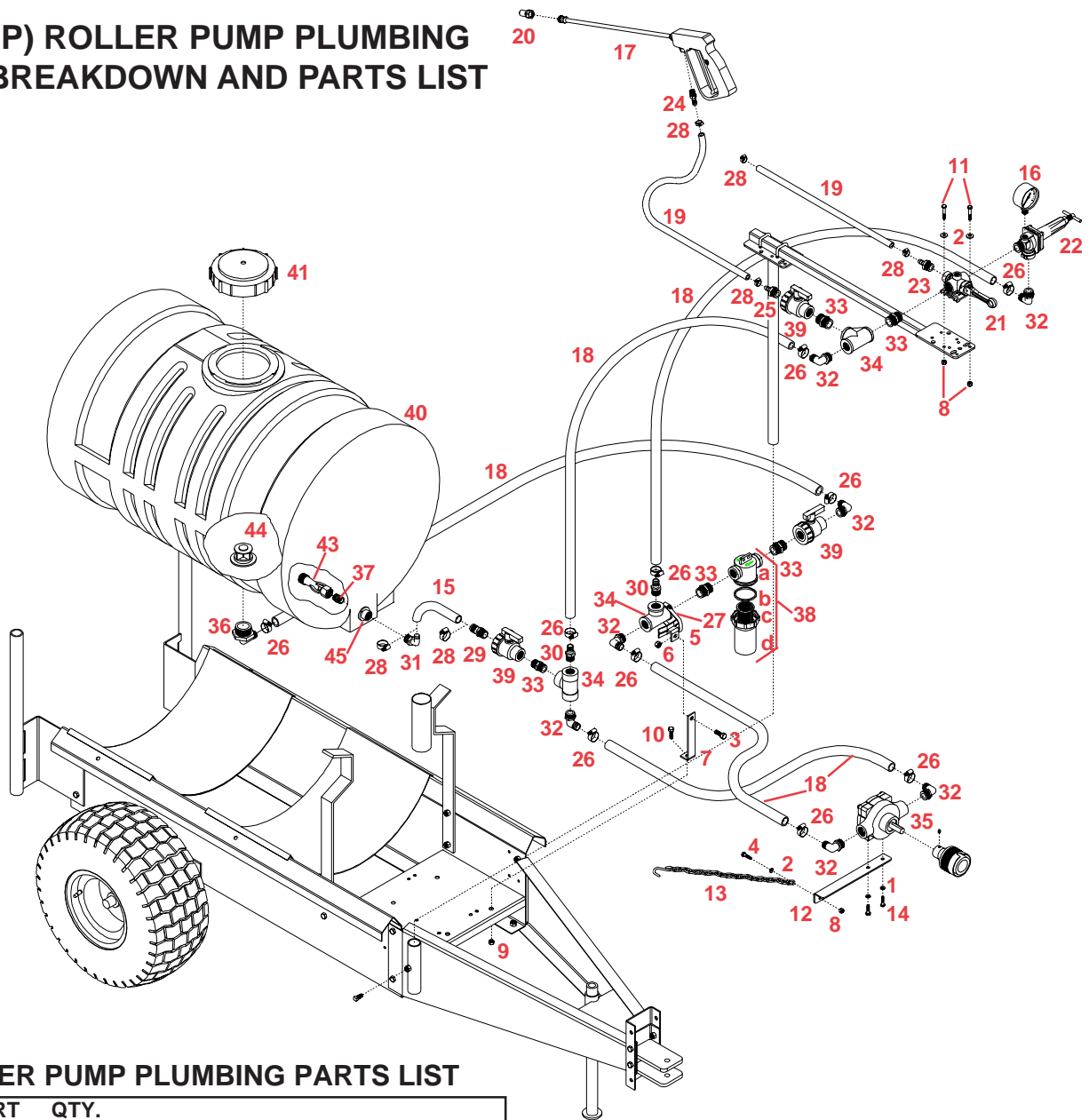


PUMP PLUMBING PARTS LIST

REF. NO.	PART NO.	QTY. REQD	DESCRIPTION	REF. NO.	PART NO.	QTY. REQD	DESCRIPTION
1.	00214	6	1/4" Flatwasher	22.	BA1212	2	1/2" MPT x 3/8" Hose Barb
2.	00336	4	1/4"-20 UNC x 1-1/4" Hex Head Bolt	23.	BEL1212	3	1/2" MPT x 1/2" Hose Barb Elbow
3.	00907	1	3/8"-16 UNC x 1" Hex Head Bolt	24.	BEL3412	1	3/4" MPT x 1/2" Hose Barb Elbow
4.	00955	1	1/4"-20 UNC x 2" Rd. U-bolt	25.	BM1238	1	1/2" MPT x 3/8" MPT Reducer Nipple
5.	02772	7	1/4"-20 UNC Nylon Insert Locknut	26.	BRB114 34	1	1-1/4i MPT x 3/4i Reducer Fitting
6.	03900	1	3/8" FPT x 3/8" FPT Valve	27.	BTT12G	1	1/2" FPT Tee (Tapped for Gauge)
7.	04055	1	1/4"-20UNC x 1" Hex Head Bolt	28.	EL1438	1	1/4" MPT x 3/8" Hose Barb Elbow
8.	04755-95	1	Switch Mount	29.	EL3838	1	3/8" MPT x 3/8" Hose Barb Elbow
9.	04764	1	10' Wire Harness	30.	M1200	1	1/2i MPT Nipple
10.	05020	2	Male Bullet Connector	31.	P012DSW	1	1/2i Double Thread Spin Weld Fitting
11.	05021	2	Female Bullet Connector	32.	P114PAVSW	1	1-1/4i Anti-Vortex Spin Weld Fitting
12.	100GB	1	100 lb. Brass Pressure Gauge	33.	P55 23A	1	55gal. Poly Tank
13.	10983	1	Electric 12 VDC Pump (5 GPM)	34.	PL5A	1	5" dia. Lid w/ O-ring
14.	120RB	-	1/2" I.D Rubber Hose	35.	RVB12 80	1	Strainer Assembly w/ 80 mesh screen
15.	23120PP	1	1/2" NPT Pressure Relief Valve	a.	RVF38C	1	1/2" Strainer Cup
16.	30L-18PP	1	18" Hand Spray Wand	b.	RVB80	1	80 Mesh Screen for 1/2" Strainer
17.	380RB	-	3/8" I.D. Rubber Hose	c.	RVB38GE	1	Viton O-Ring (not shown)
18.	5044 1	1	Single Aggitation Wand Assembly	d.	RVB38B	1	Strainer Bowl
20.	A1438	1	1/4" MPT x 3/8" Hose Barb Fitting	36.	05004	2	Female Push on Connector (connects to back of toggle switch)
21.	B6H	12	3/8" Hose Clamp SS				

Please order replacement parts by PART NO. and DESCRIPTION.

(TR55RP) ROLLER PUMP PLUMBING PARTS BREAKDOWN AND PARTS LIST

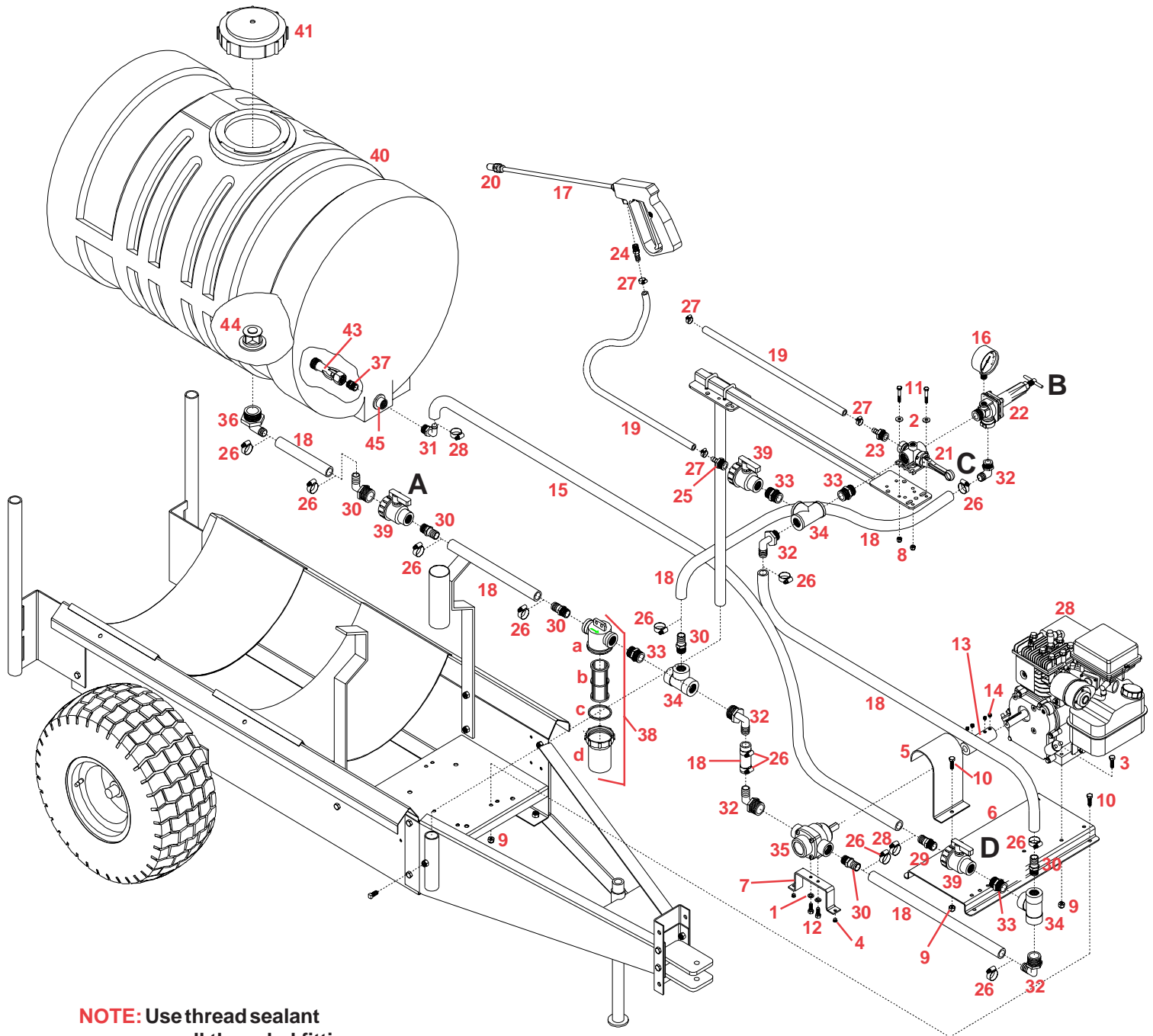


ROLLER PUMP PLUMBING PARTS LIST

REF. NO.	PART NO.	QTY. REQD	DESCRIPTION
1.	00036	2	5/16" Lockwasher
2.	00214	5	1/4" Flatwasher
3.	00907	1	3/8"-16 UNC x 1" Hex Head Bolt
4.	01076	1	1/4"-20 UNC x 3/4" Hex Head Bolt
5.	02150-95	1	Tee Mounting Bracket
6.	02592	1	3/8"-16 UNC Nylon Insert Locknut
7.	02616-10	1	Vertical Strainer Mounting Bracket
8.	02772	5	1/4"-20 UNC Nylon Insert Locknut
9.	02802	1	5/16"-18 UNC Nylon Insert Locknut
10.	02990	1	5/16"-18 UNC x 1" Hex Head Bolt
11.	04055	4	1/4"-20 UNC x 1" Hex Head Bolt
12.	04298-70	1	Pump Mounting Bracket
13.	04299	1	Roller Pump Chain
14.	04305	2	5/16"-18 UNC x 1/2" Hex Head Bolt
15.	120RB	-	1/2" I.D Rubber Hose
16.	160GB	1	160 lb. Brass Pressure Gauge
17.	30L22425 18	1	18" Hand Spray Gun
18.	340RB	-	3/4" I.D Rubber Hose
19.	380RB	-	3/8" I.D. Rubber Hose
20.	5500 18PP	1	Adjustable Spray Tip
21.	6B1	1	Direct - o - valve
22.	8460	1	3/4" MPT Pressure Relief Valve
23.	A1238	1	1/2" MPT x 3/8" Hose Barb
24.	A1438	1	1/4" MPT x 3/8" Hose Barb
25.	A3438	1	3/4" MPT x 3/8" Hose Barb
26.	B12H	10	3/4" Hose Clamp SS
27.	B24H	2	1-1/4" Hose Clamp SS
28.	B6H	6	3/8" Hose Clamp SS
29.	BA3412	1	3/4" MPT x 1/2" Hose Barb
30.	BA3434	2	3/4" MPT x 3/4" Hose Barb
31.	BEL1212	1	1/2" MPT x 1/2" Hose Barb Elbow
32.	BEL3434	7	3/4" MPT x 3/4" Hose Barb Elbow
33.	BM3400	5	3/4" MPT Nipple
34.	BTT34	3	3/4" FPT Tee
35.	C6500D	1	Cast Iron Roller Pump w/Quick Coupler
-	XL6500D	-	Silver Cast Roller Pump
-	1321 0012	1	Quick Coupler Adapter (540 RPM)
36.	EL114 34	1	1-1/4" MPT x 3/4" Hose Barb Elbow
37.	M1200	1	1/2" MPT Short Nipple
38.	RVF34 80	1	3/4" Line Strainer w/80 mesh screen
a.	RVF34C	1	3/4" Strainer Cup
b.	RVF34GV	1	Viton O-ring for 3/4" Strainer
c.	RVF380	1	80 Mesh Screen for 3/4" Strainer
d.	RVF34B	1	Strainer Bowl
39.	UV075FP	3	3/4" Poly Ball Valve
40.	P5523A	1	55 Gallon Poly Tank w/ Agitation Installed
41.	PL5A	1	5" dia. Lid w/ O-ring
43.	5044 1	1	Single Agitation Wand Assembly
44.	P114PAVSW	1	1-1/4" Anti-Vortex Spin Weld Fitting
45.	P012DSW	1	1/2" Double Thread Spin Weld Fitting

Please order replacement parts by PART NO. and DESCRIPTION.

ENGINE DRIVEN ROLLER PUMP PLUMBING PARTS BREAKDOWN



NOTE: Use thread sealant on all threaded fittings.

OPERATING INSTRUCTIONS

1. Fill the tank with water.
2. Open the Ball valve **(A)** in the pump intake line.
3. Open (counter clockwise) the pressure relief valve **(B)**.
4. Open the Tee valve **(C)** so that all the boom sections are spraying.
5. Open the agitation valve **(D)**.
6. Start and run pump.
7. Slowly close the pressure relief valve **(B)** until the desired spraying pressure is reached with the boom spraying.
8. If adequate spraying pressure cannot be reached, slowly close the agitation valve **(D)** until the desired spraying pressure is reached.
9. Check for leaks.

ENGINE DRIVEN ROLLER PUMP PLUMBING PARTS LIST

REF. NO.	PART NO.	QTY. REQD	DESCRIPTION	REF. NO.	PART NO.	QTY. REQD	DESCRIPTION
1.	00036	2	5/16" Lockwasher	26.	B12H	12	3/4" Hose Clamp SS
2.	00214	4	1/4" Flatwasher	27.	B6H	6	3/8" Hose Clamp SS
3.	00372	4	5/16"-18 UNC x 1-1/2" Hex Head Bolt	28.	GE3HP	1	3-1/2 H.P. Briggs Gas Engine
4.	01872	2	Rubber Bumper	-	GH4HP	-	4 H.P. Honda Gas Engine
5.	02653-70	1	Pump Drive Shaft Shield	29.	BA3412	1	3/4" MPT x 1/2" Hose Barb
6.	02658-10	1	Engine Mounting Plate	30.	BA3434	6	3/4" MPT x 3/4" Hose Barb
7.	02660-70	1	Pump Mounting Bracket	31.	BEL1212	1	1/2" MPT x 1/2" Hose Barb Elbow
8.	02772	4	1/4"-20 UNC Nylon Insert Locknut	32.	BEL3434	5	3/4" MPT x 3/4" Hose Barb Elbow
9.	02802	9	5/16"-18 UNC Nylon Insert Locknut	33.	BM3400	4	3/4" MPT Nipple
10.	02990	5	5/16"-18 UNC x 1" Hex Head Bolt	34.	BTT34	3	3/4" FPT Tee
11.	04055	4	1/4"-20 UNC x 1" Hex Head Bolt	35.	C4101	1	Cast Iron Roller Pump
12.	04305	2	5/16"-18 UNC x 1/2" Hex Head Bolt	-	XL4101	1	Silver Cast Roller Pump
13.	04880-95	1	Pump Coupler	36.	EL114 34	1	1-1/4" MPT x 3/4" Hose Barb Elbow
14.	07174	4	Coupler Set Screws	37.	M1200	1	1/2" MPT Short Nipple
15.	120RB	-	1/2" I.D Rubber Hose	38.	RVF34 80	1	3/4" Line Strainer w/80 mesh screen
16.	160GB	1	160 lb. Brass Pressure Gauge	a.	RVF34C	1	3/4" Strainer Cup
17.	30L22425 18	1	18" Hand Spray Gun	b.	RVF380	1	80 Mesh Screen for 3/4" Strainer
18.	340RB	-	3/4" I.D Rubber Hose	c.	RVF34GV	1	Viton O-ring for 3/4" Strainer
19.	380RB	-	3/8" I.D. Rubber Hose	d.	RVF34B	1	Strainer Bowl
20.	5500 18PP	1	Adjustable Spray Tip	39.	UV075FP	3	3/4" Poly Ball Valve
21.	6B1	1	Direct - o - valve	40.	P5523A	1	55 Gallon Poly Tank w/ Agitation Installed
22.	8460	1	3/4" MPT Pressure Relief Valve	41.	PL5A	1	5" dia. Lid w/ O-ring
23.	A1238	1	1/2" MPT x 3/8" Hose Barb	43.	50441	1	Single Agitation Wand Assembly
24.	A1438	1	1/4" MPT x 3/8" Hose Barb	44.	P114PAVSW	1	1-1/4" Anti-Vortex Spin Weld Fitting
25.	A3438	1	3/4" MPT x 3/8" Hose Barb	45.	P012DSW	1	1/2" Double Thread Spin Weld Fitting

Please order replacement parts by PART NO. and DESCRIPTION.

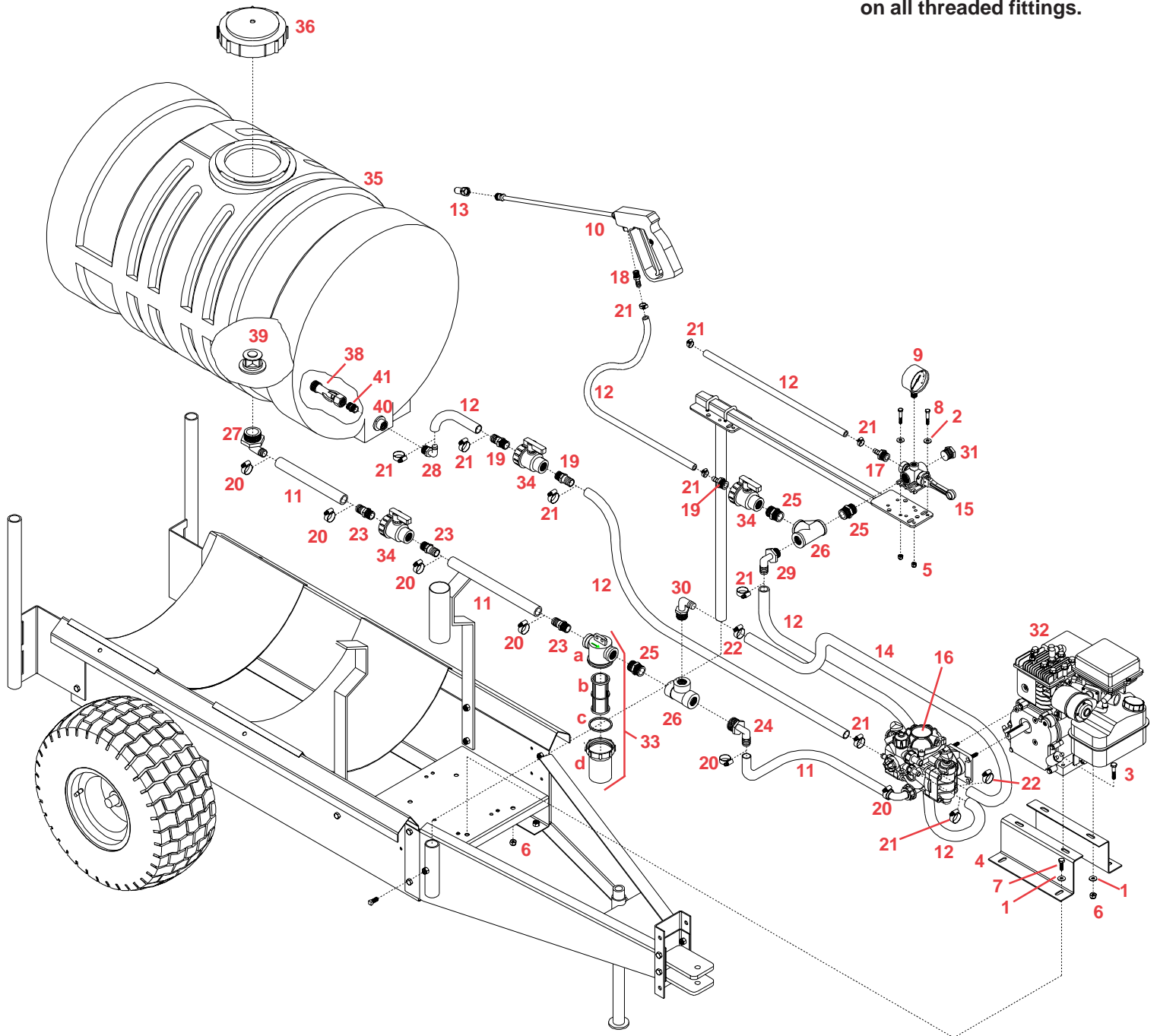
DIAPHRAGM PUMP PLUMBING PARTS LIST

REF. NO.	PART NO.	QTY. REQD	DESCRIPTION	REF. NO.	PART NO.	QTY. REQD	DESCRIPTION
1.	00004	8	5/16" Flatwasher	24.	BEL3434	1	3/4" MPT x 3/4" Hose Barb Elbow
2.	00214	4	1/4" Flatwasher	25.	BM3400	3	3/4" MPT Nipple
3.	00372	4	5/16"-18 UNC x 1-1/2" Hex Head Bolt	26.	BTT34	2	3/4" FPT Tee
4.	02615-10	2	Diaphragm Pump Mounting Bracket	27.	EL114 34	1	1-1/4" MPT x 3/4" Hose Barb Elbow
5.	02772	4	1/4"-20 UNC Nylon Insert Locknut	28.	EL1238	1	1/2" MPT x 3/8" Hose Barb Fitting
6.	02802	8	5/16"-18 UNC Nylon Insert Locknut	29.	EL3438	1	3/4" MPT x 3/8" Hose Barb
7.	02990	4	5/16"-18 UNC x 1" Hex Head Bolt	30.	EL3458	1	3/4" MPT x 5/8" Hose Barb
8.	04055	4	1/4"-20 UNC x 1" Hex Head Bolt	31.	F3400	1	3/4" MPT Plug
9.	160GBF	1	160 lb. Brass Pressure Gauge Liquid Filled	32.	GE3HP	1	3-1/2 H.P. Briggs Gas Engine
10.	30L22425 18	1	18" Hand Spray Gun	-	GH4HP	-	4 H.P. Honda Gas Engine
11.	340RB	-	3/4" I.D Rubber Hose	33.	RVF34 80	1	3/4" Line Strainer w/80 mesh screen
12.	380RB	-	3/8" I.D. Rubber Hose	a.	RVF34C	1	3/4" Strainer Cup
13.	5500 18PP	1	Adjustable Spray Tip	b.	RVF380	1	80 Mesh Screen for 3/4" Strainer
14.	580RB	-	5/8" I.D. Rubber Hose	c.	RVF34GV	1	Viton O-ring for 3/4" Strainer
15.	6B1	1	Direct - o - valve	d.	RVF34B	1	Strainer Bowl
16.	9910D19GRGI	1	Diaphragm Pump	34.	UV075FP	3	3/4" Poly Ball Valve
17.	A1238	1	1/2" MPT x 3/8" Hose Barb	35.	P5523A	1	55 Gallon Poly Tank w/ Agitation Installed
18.	A1438	1	1/4" MPT x 3/8" Hose Barb	36.	PL5A	1	5" dia. Lid w/ O-ring
19.	A3438	3	3/4" MPT x 3/8" Hose Barb	38.	50441	1	Single Agitation Wand Assembly
20.	B12H	6	3/4" Hose Clamp SS	39.	P114PAVSW	1	1-1/4" Anti-Vortex Spin Weld Fitting
21.	B6H	10	3/8" Hose Clamp SS	40.	P012DSW	1	1/2" Double Thread Spin Weld Fitting
22.	B8H	2	1/2" Hose Clamp SS	41.	M1200	1	1/2" MPT Short Nipple
23.	BA3434	3	3/4" MPT x 3/4" Hose Barb				

Please order replacement parts by PART NO. and DESCRIPTION.

ENGINE DRIVEN DIAPHRAGM PUMP PARTS BREAKDOWN

NOTE: Use thread sealant on all threaded fittings.



DIAPHRAGM PUMP INSTRUCTIONS

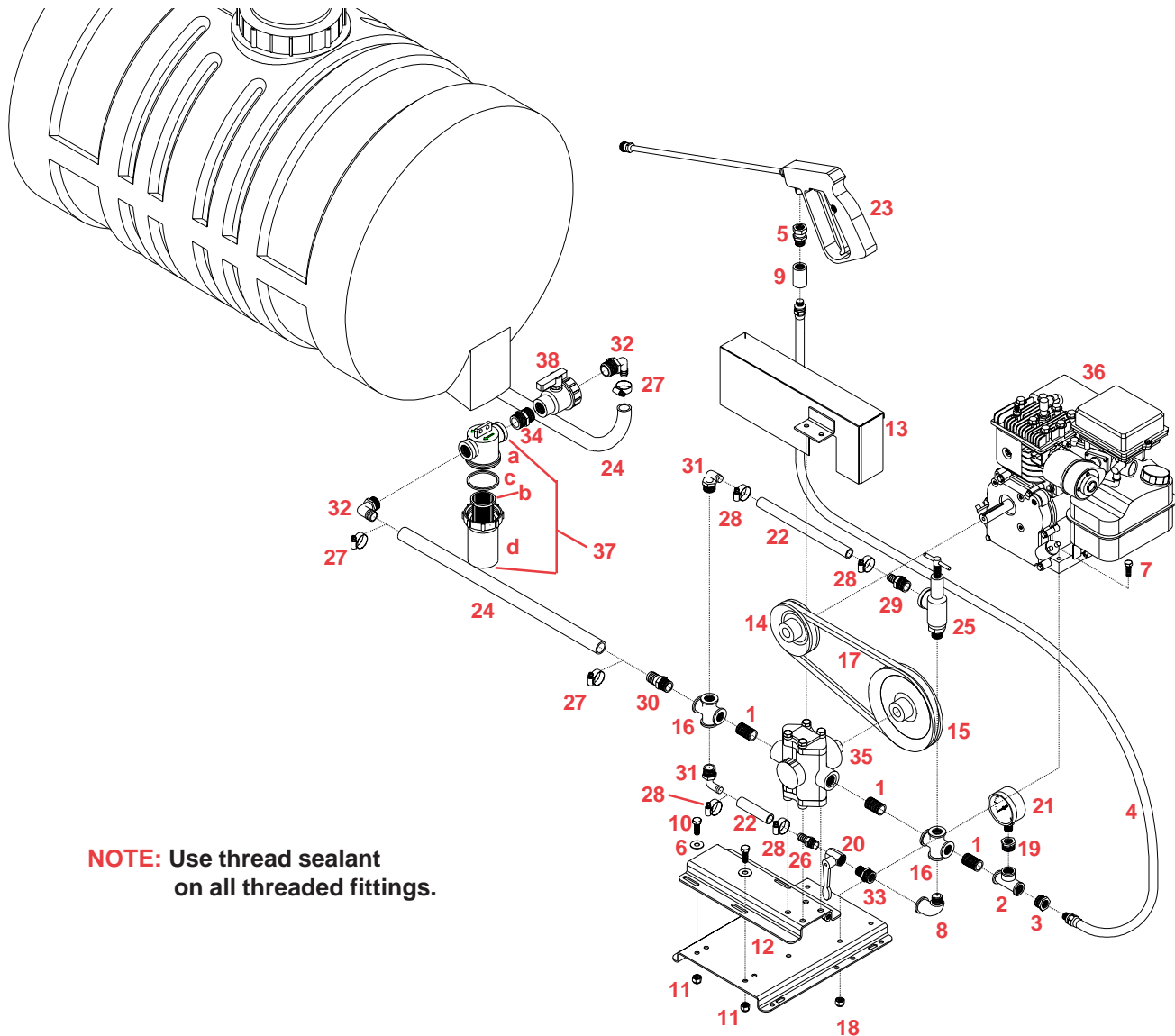
OPERATION INSTRUCTIONS

1. Be sure oil is halfway up the clear oil sight tube. If necessary, fill to correct level with 30 weight non-detergent motor oil.
2. Make sure the suction hose barb is tightly screwed onto the suction union, and that there are no air leaks on the inlet side of the pump.
3. Check the charge pressure on the pulsation damper before starting the pump. The pressure is checked with a standard automotive air gauge. The pressure should be at approximately 20% of the maximum operating pressure with a minimum charge of 10 PSI.
4. Allow the pump to start under low pressure by removing restrictions on the outlet of the pump. The restriction on the pump is removed by rotating the red knob on the control unit so that the letter A on the knob is in the 12 o'clock position.
5. Start pump and let run for approximately one minute at low pressure. Stop pump and check the oil level in sight glass. Add 30 weight non-detergent oil if necessary.
6. Adjust pump to desired pressure by changing the relief valve setting on the control unit, relief valve or unloader. First back out relief valve adjustment knob to zero. Then rotate red bypass selector knob so that the letter C is in the 12 o'clock position. Adjust pressure by rotating relief valve adjustment knob to desired pressure.

MAINTENANCE INSTRUCTIONS

1. After use, flush pump with clean water.
2. Change oil and diaphragms every 500 hours. To drain oil from the pump, remove cap from oil sight tube, turn pump upside down and rotate the shaft until oil stops flowing out. To fill pump with oil, slowly pour oil into sight tube while turning the pump shaft. Turning the pump shaft purges all the air out of the crankcase. Always change oil when replacing diaphragms.
3. For winter storage or if a freezing condition will be encountered, flush pump with a 50/50 mixture of water and antifreeze.

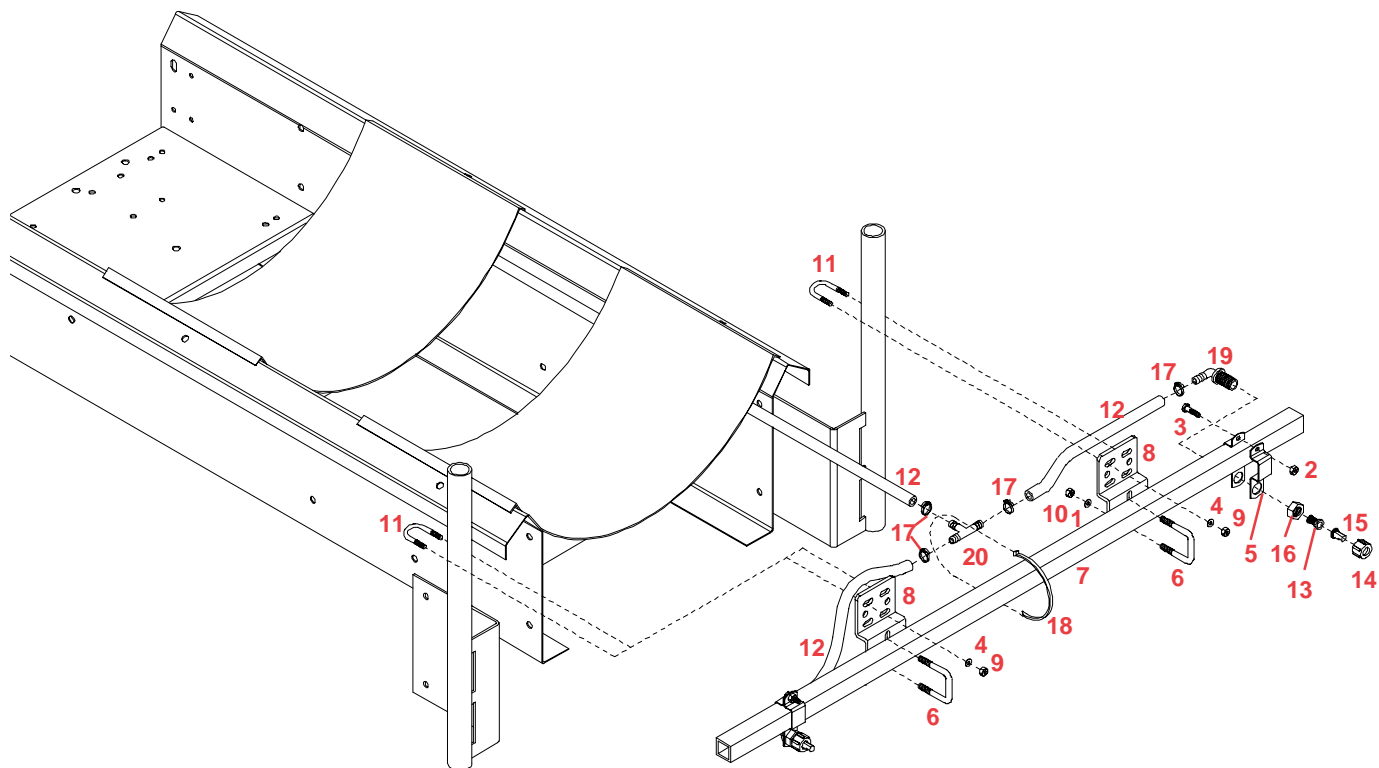
PISTON PUMP W/ SPRAY GUN PLUMBING PARTS BREAKDOWN



PISTON PUMP PLUMBING PARTS BREAKDOWN

REF. NO.	PART NO.	QTY. REQD	DESCRIPTION	REF. NO.	PART NO.	QTY. REQD	DESCRIPTION
1.	00014	3	1/2" MPT Close Nipple-Steel	23.	23H	1	Spray Gun (less wand & tip)
2.	00016	1	1/2" MPT x 1/2" FPT-Steel	-	4006	1	Main Spraying Tip
3.	00021	1	1/2" MPT x 3/8" FPT Reducer Fitting-Steel	-	0006	1	Brass Cutting Tip
4.	00022	1	3/8" High Pressure Hose w/couplers (35')	24.	340RB	-	3/4" I.D Rubber Hose
5.	00024	1	3/8" Swivel Fitting	25.	6815BR	1	1/2" Pressure Relief Valve (700 psi.)
6.	00059	4	3/8" Flatwasher	26.	A3812	1	3/8" MPT x 1/2" Hose Barb Fitting
7.	00372	4	5/16"-18 UNC x 1-1/2" Hex Head Bolt	27.	B12	4	3/4" Hose Clamp
8.	00536	1	1/2" Street Elbow-Steel	28.	B8H	4	1/2" Hose Clamp
9.	00817	1	3/8" Coupler-Steel	29.	BA1212	1	1/2" MPT x 1/2" Hose Barb Fitting
10.	00907	4	3/8"-16 UNC x 1" Hex Head Bolt	30.	BA1234	1	1/2" MPT x 3/4" Hose Barb Fitting
11.	02592	4	3/8"-16 UNC Nylon Insert Locknut	31.	BEL1212	2	1/2" MPT x 1/2" Hose Barb Fitting
12.	02620-10	1	Piston Pump Mounting Plate	32.	BEL3434	2	3/4" MPT x 3/4" Hose Barb
13.	02621-10	1	Belt Guard	33.	BM1238	1	1/2" MPT x 3/8" MPT Straight Fitting
14.	02752	1	Small Pulley- 3/4" Shaft	34.	BM3400	1	3/4" MPT Nipple
15.	02753	1	Large Pulley- 5/8" Shaft	35.	C5330R	1	Piston Pump
16.	02773	2	1/2" FPT Cross-Galv	-	EL114 34	1	Tank Outlet Fitting (not shown)
17.	02780	1	Piston Pump Belt	36.	GE3HP	1	3.5 HP Gas Engine (Horizontal Shaft)
18.	02802	4	5/16"-18 UNC Nylon Insert Locknut	37.	RVF34 80	1	3/4" Line Strainer (80 mesh screen)
19.	02963	1	1/2" MPT x 1/4" FPT Reducer Fitting-Steel	a.	RVF34C	1	3/4" Strainer Cup
20.	03900	1	3/8" FPT (2x) Brass Valve	b.	RVF380	1	80 Mesh Screen for 3/4" Strainer
21.	1000GBF	1	1000 p.s.i. Brass Gauge	c.	RVF34GV	1	Viton O-ring for 3/4" Strainer
22.	120RB	-	1/2" I.D Rubber Hose	d.	RVF34B	1	Strainer Bowl
				38.	UV075FP	1	3/4" Poly Ball Valve

80" BOOM (80B25) PARTS BREAKDOWN



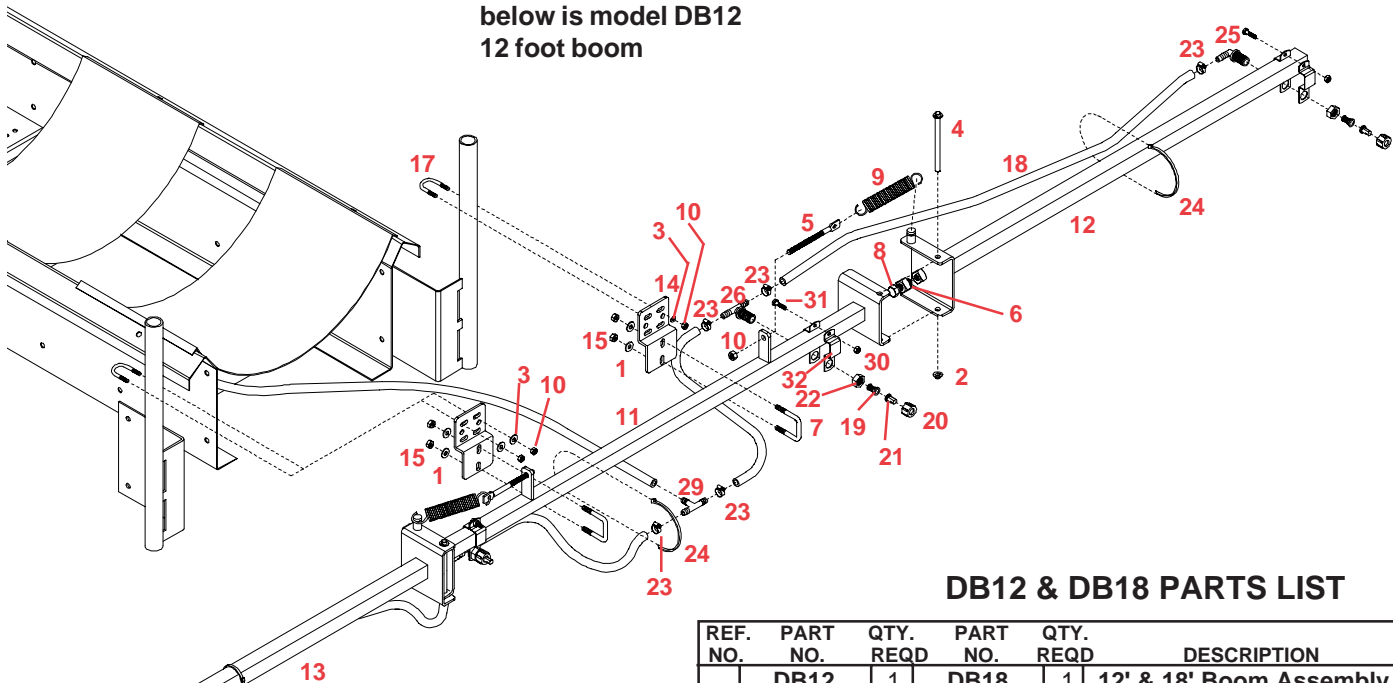
80" BOOM (80B25) PARTS LIST

REF. NO.	PART NO.	QTY. REQD	DESCRIPTION
1.	00004	4	5/16" Flatwasher
2.	00062	2	1/4"-20 UNC Hex Nut
3.	00068	2	1/4"-20 UNC x 3/4" Hex Bolt
4.	00059	8	3/8" Flatwashers
5.	00337-95	4	1-1/4" Boom Clamp
6.	00909	2	5/16"-18 UNC x 1-1/4" Sq. U-bolt
7.	02253-10	1	Center Boom
8.	02678-95	2	Boom Mounting Plate
9.	02592	4	3/8"-16 UNC Nylon Insert Locknut
10.	02802	4	5/16"-18 UNC Nylon Insert Locknut
11.	02529	2	3/8"-16 UNC x 1-1/2" Round U-bolt
12.	380RB	-	3/8" I.D. Rubber Hose
13.	4193APP50	2	5 PSI Ball Check Strainer
14.	8027	2	11/16" FPS Swivel Nut
15.	AN1.5	2	Flood Jet Spray Tip
16.	B12	2	Nozzle Nut
17.	B6H	6	3/8" Hose Clamp
18.	NHT11	1	Hose Tie
19.	NTL38	2	3/8" Elbow Spray Nozzle Fitting (w/nut)
20.	T38	1	3/8" Hose Barb Insert Tee

Please order replacement parts by **PART NO.** and **DESCRIPTION.**

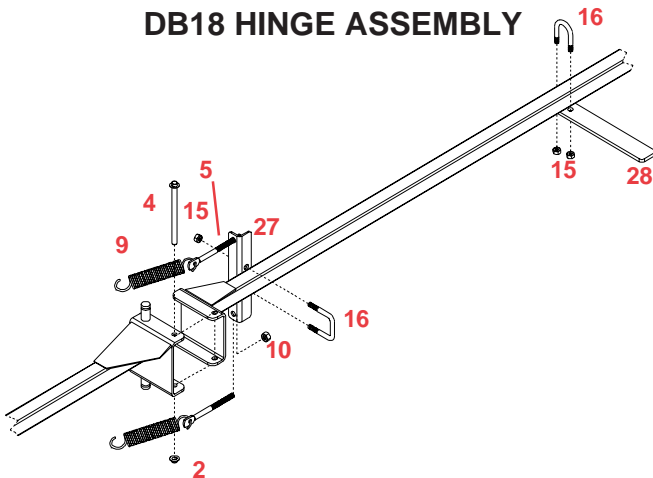
12' & 18' BOOM (DB12 & DB18) PARTS BREAKDOWN

NOTE: Boom shown below is model DB12 12 foot boom



NOTE: The mounting brackets (#14) and attaching hardware are used to mount the 18' Boom in the same manner.

DB18 HINGE ASSEMBLY



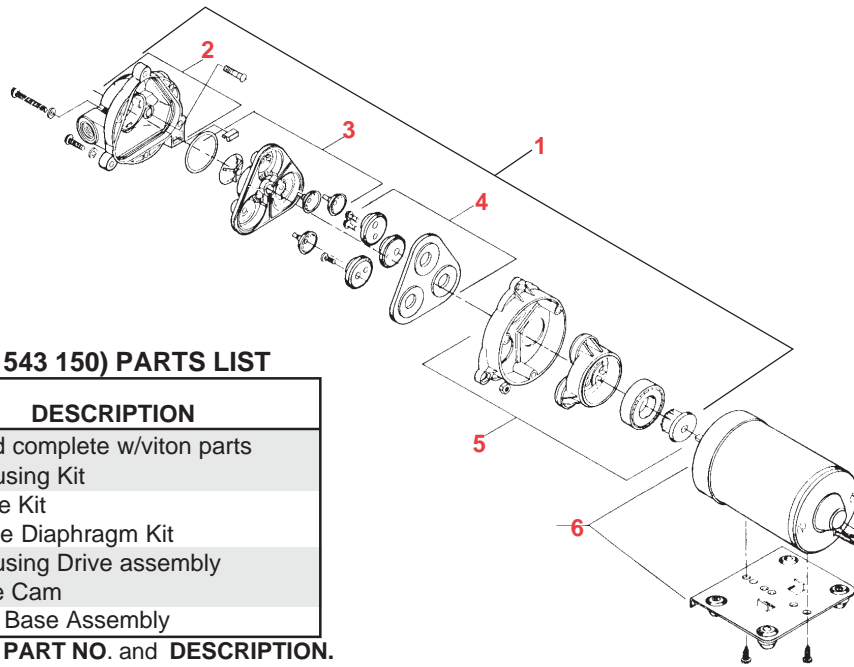
DB12 & DB18 PARTS LIST

REF. NO.	PART NO.	QTY. REQD	PART NO.	QTY. REQD	DESCRIPTION
	DB12	1	DB18	1	12' & 18' Boom Assembly
1.	00004	4	00004	4	5/16" Flatwasher
2.	11137	2	11137	2	3/8" Clinch Nut (inclid with 00340-95)
3.	00059	8	00059	8	3/8" Flatwasher
4.	00340-95	2	00340-95	2	Wing Hinge Pin (includes two 11137)
5.	00357	2	00357	4	3/8"-16 UNC x 4-1/2" Tension Bolt
6.	00640	2	00640	2	1/2"-13 UNC Jam Nut
7.	00909	2	00909	5	5/16" x 1-3/8" Sq. U-bolt
8.	00967	2	00967	2	1/2"-13 UNC x 1-1/4" Hex Head Bolt
9.	01564	2	01564	4	Spring
10.	02592	6	02592	8	3/8"-16 UNC Nylon Insert Locknut
11.	02636-10	1	03673-10	1	Center Boom Section
12.	02637-10	1	03675-10	1	Right Wing Section
13.	02638-10	1	03680-10	1	Left Wing Section
14.	02678-95	2	02678-95	2	Boom Mounting Plate
15.	02772	8	02772	14	1/4"-20 UNC Nylon Insert Locknut
16.	-	-	04822	3	1/4"-20 UNC x 1-1/2" Sq. U-bolt
17.	02529	2	02529	2	3/8"-16 UNC x 1-1/2" Round U-bolt
18.	380RB	-	380RB	-	3/8" I.D. Rubber Hose
19.	4193APP50	4	4193APP50	6	5 PSI Ball Check Valve
20.	8027	4	8027	6	11/16" FPS Swivel Nut
21.	AN1.5	4	AN1.5	6	Flood Jet Spray Tip
22.	B12	4	B12	6	Nozzle Nut
23.	B6H	8	B6H	12	3/8" Gear Clamp
24.	NHT11	3	NHT11	12	Hose Tie
25.	NTL38	2	NTL38	2	3/8" Elbow Spray Nozzle Fitting w/nut
26.	NTT38	2	NTT38	4	3/8" Tee Nozzle Fitting w/nut
27.	-	-	03674-10	2	Spring Anchor Angle (DB18 Only)
28.	-	-	03676-10	1	Boom Support Plate (DB18 Only)
29.	T38	1	T38	1	3/8" Insert Tee

	B11 114	4	B11 114	6	1-1/4" Boom Clamp Assembly
30.	00062	1	00062	1	1/4"-20 UNC Nut
31.	00068	1	00068	1	1/4"-20 UNC x 3/4" Hex Hd. Bolt
32.	00337-95	2	00337-95	2	1-1/4" Boom Clamp

Please order replacement parts by PART NO. and DESCRIPTION.

STANDARD ELECTRIC PUMP (8000 543 150) PARTS BREAKDOWN



ELECTRIC PUMP (8000 543 150) PARTS LIST

REF. NO.	PART NO.	DESCRIPTION
1.	94 382 09	Pumphead complete w/viton parts
2.	94 378 00	Upper Housing Kit
3.	94 391 09	Viton Valve Kit
4.	94 395 06	Santoprene Diaphragm Kit
5.	94 385 03	Lower Housing Drive assembly 3.0 degree Cam
6.	94 370 03	Motor and Base Assembly

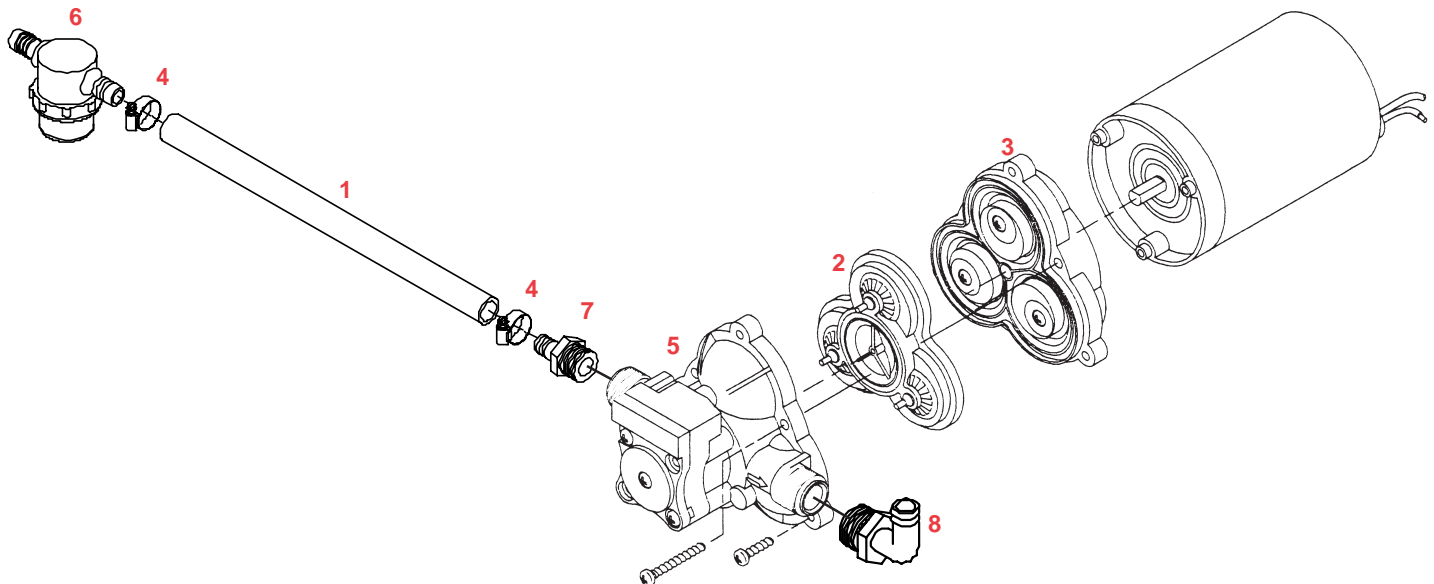
Please order replacement parts by **PART NO.** and **DESCRIPTION.**

5 G.P.M. ELECTRIC PUMP (10983) PARTS BREAKDOWN

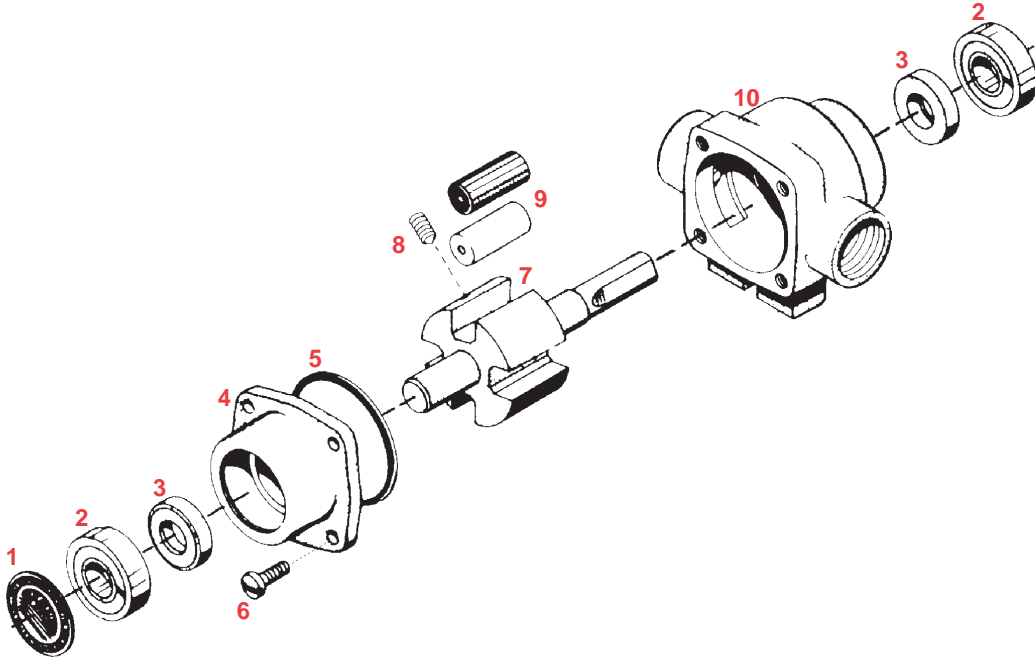
OPT. ELECTRIC PUMP (10983) PARTS LIST

REF. NO.	PART NO.	DESCRIPTION
1.	120RB	1/2i I.D. Rubber Hose
2.	11261	Valve Housing Assembly
3.	11260	Lower Housing Assembly
4.	B6H	3/8i Hose Clamp
5.	11262	Upper Housing Assembly
6.	RVB12 80	1/2" MPT x 1/2" Hose Barb Bowl Filter
7.	BA1212	1/2" MPT x 1/2" Hose Barb
8.	BEL1212	1/2" MPT x 1/2" Hose Barb Elbow

Please order replacement parts by **PART NO.** and **DESCRIPTION.**



ROLLER PUMP PARTS BREAKDOWN **CAST IRON C4101** **SILVER CAST XL4101**



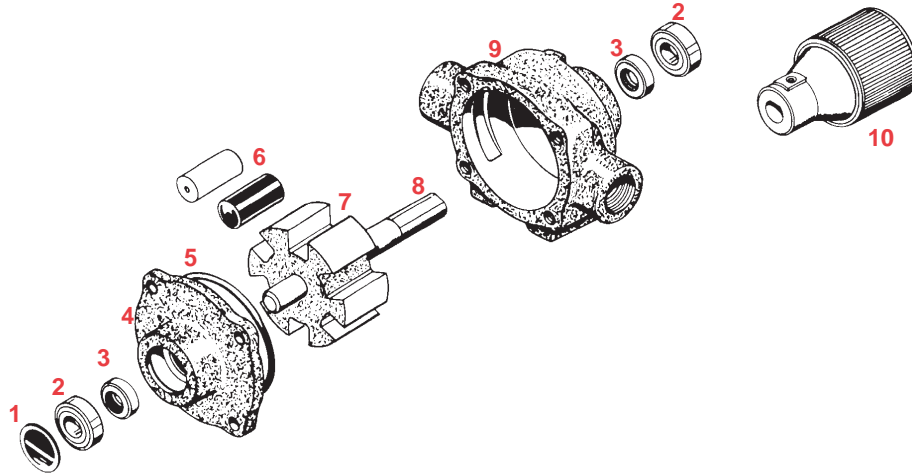
CAST IRON ROLLER PUMP PARTS LIST **C4101**

REF. NO.	PART NO.	QTY. REQD	DESCRIPTION
1.	0600	1	Name Plate (specify pump model #.)
2.	BAC37	2	Sealed Ball Bearing
3.	*2107 0002	2	Viton Seal (standard)
4.	0200 4101C	1	End Plate (cast iron)w/standard seal
5.	*1720 0104	1	O-ring Gasket for End Plate
6.	2200 0009	4	End Plate Screw
7.	0300 4101C	1	Rotor (cast iron)and Shaft Assembly
-	0500 6600	1	Shaft ONLY
8.	2230 0002	1	Rotor Set Screw
9.	1005 0004	4	Super Rollers (standard)
-	*1002 0002	4	Polypropylene Rollers (optional)
10.	0100 4101C	1	Body (cast iron) w/standard seal
-	3430 0158	-	Repair Kit: contains items marked (*)

SILVER CAST ROLLER PUMP PARTS LIST **XL4101**

REF. NO.	PART NO.	QTY. REQD	DESCRIPTION
1.	0600	1	Name Plate (specify pump model #)
2.	BAC37	2	Sealed Ball Bearing
3.	*2107 0002	2	Viton Seal (standard)
4.	0200 4101X	1	End Plate (silver cast) w/standard seal
5.	*1720 0104	1	O-ring Gasket for End Plate
6.	2200 0009	4	End Plate Screw
7.	0300 4101X	1	Rotor (silver cast) and shaft assembly
-	0500 6600	-	Shaft ONLY
8.	2230 0002	1	Rotor Set Screw
9.	1005 0004	4	Super Rollers (standard)
-	*1002 0002	4	Polypropylene Rollers (optional)
10.	0100 4101X	1	Body (silver cast) w/standard seal
-	3430 0158	-	Repair Kit: contains items marked (*)

PTO DRIVEN ROLLER PUMP PARTS LIST
CAST IRON C6500D
SILVER CAST XL6500



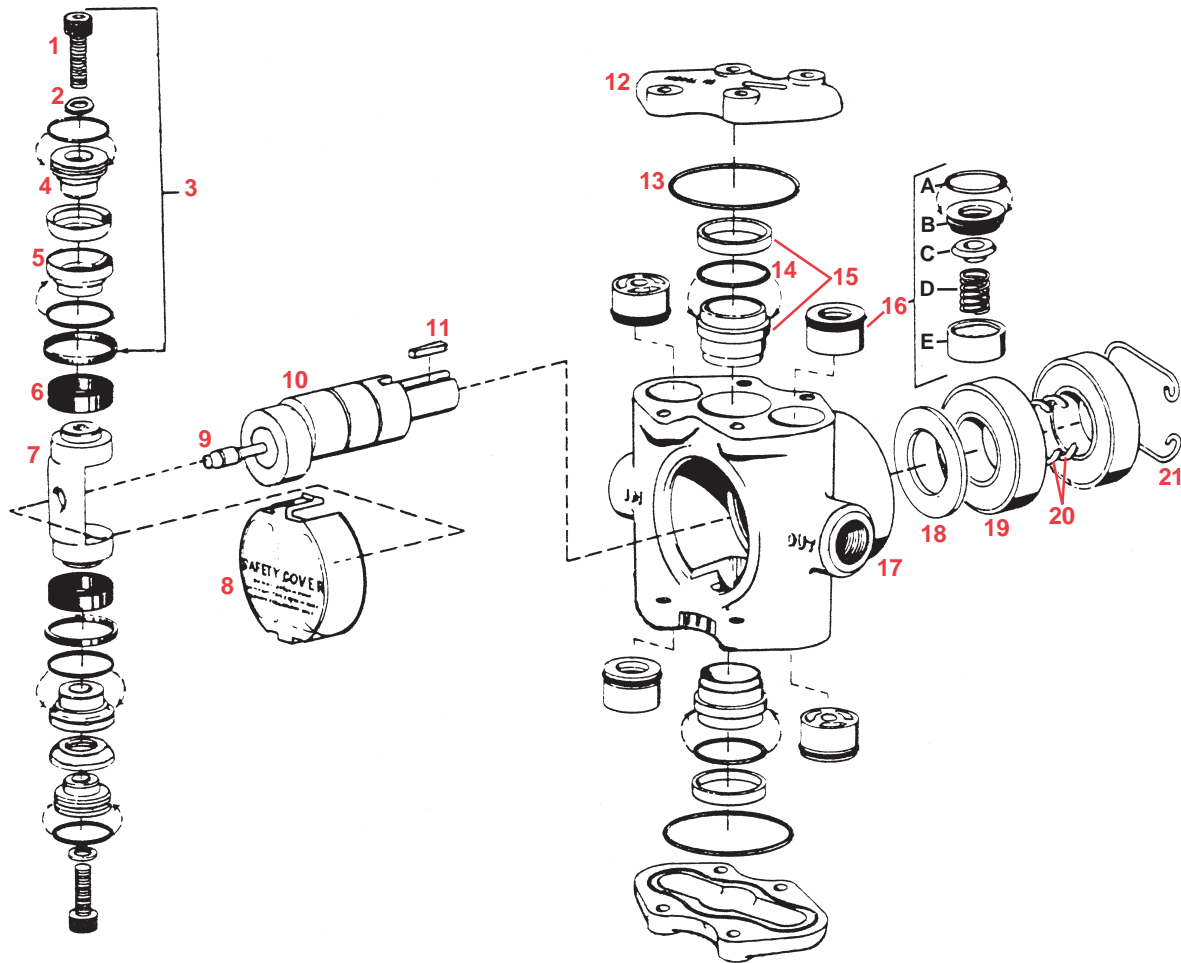
SILVER CAST ROLLER PUMP PARTS LIST
XL6500

REF. NO.	PART NO.	QTY. REQD	DESCRIPTION
1.	0600	1	Name Plate (specify pump model no.)
2.	BAC37	2	Ball Bearing (sealed)
3.	*2107 0002	2	Viton Seal (standard)
4.	0200 6600	1	End Plate (Silver Cast) (includes Seal #3)
5.	*1720 0008	1	O-ring for End Plate
6.	*1005 0004	6	Super Roller
-	1002 0004	6	Polypropylene Roller (optional)
7.	0300 6600	1	Rotor with Shaft (Silver Cast)
8.	0500 6600	1	Shaft Only
9.	0100 6600	1	Body (Siver Cast) (includes Seal #3)
10.	1321 0012	1	Quick Coupler Adapter-Multi Speed
-	3430 0380	-	Repair Kit: contains items marked (*)

CAST IRON ROLLER PUMP PARTS LIST
C6500D

REF. NO.	PART NO.	QTY. REQD	DESCRIPTION
1.	0600	1	Name Plate (specify pump model no.)
2.	BAC37	2	Ball Bearing (sealed)
3.	*2107 0002	2	Viton Seal (standard)
4.	0200 6600C	1	End Plate (includes Seal #4)
5.	*1720 0008	1	O-ring for End Plate
6.	*1005 0004	6	Super Roller
-	1002 0004	6	Polypropylene Roller (optional)
7.	0300 6600C	1	Rotor with Shaft
8.	0500 6600	1	Shaft Only
9.	0100 6600C	1	Body (includes Seal #4)
10.	1321 0012	1	Quick Coupler Adapter-Multi Speed
-	3430 0380	-	Repair Kit: contains items marked (*)

(C5330R) PISTON PUMP PARTS BREAKDOWN

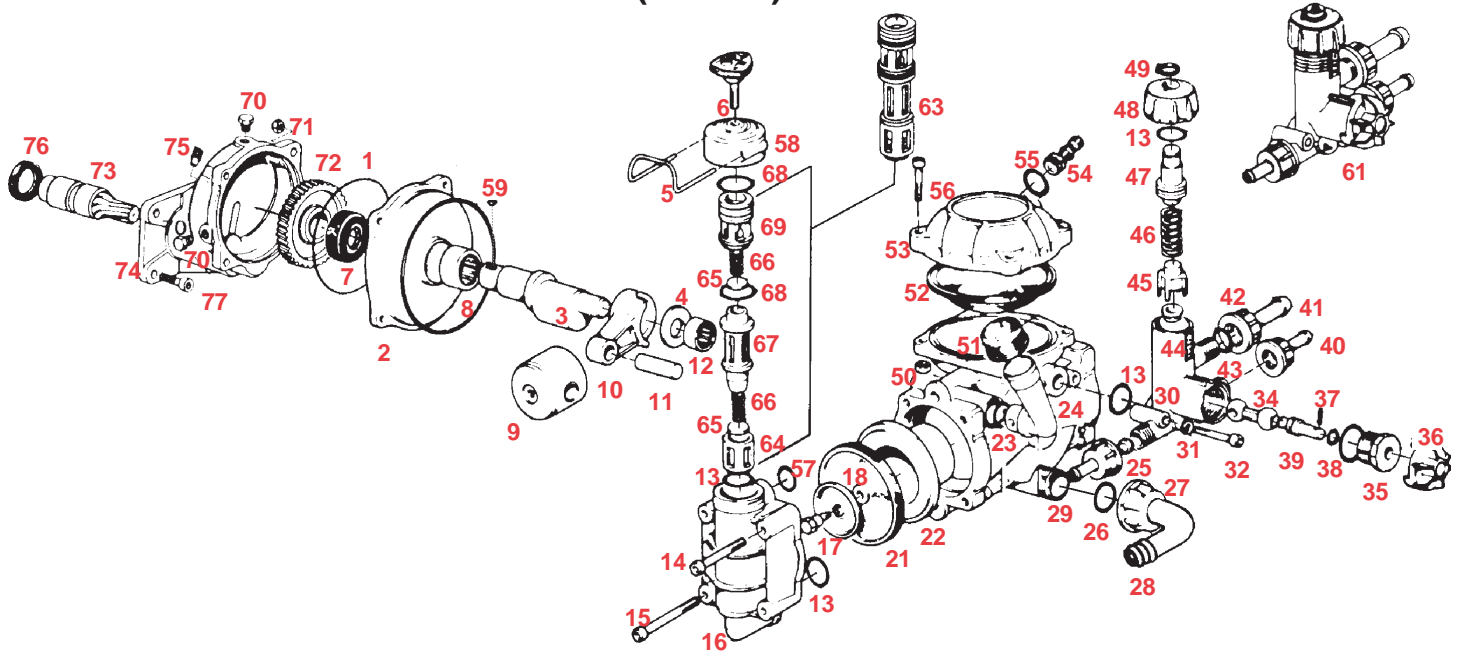


(C5330R) PISTON PUMP PARTS LIST

REF. NO.	PART NO.	QTY. REQD	DESCRIPTION
1.	2220 0012	2	Piston Cap Screw
2.	2270 0011	2	Washer Gasket
3.	3430 0009	1	Piston Repair Kit w/rubber cups
4.	1830 0017	2	Piston Cup Spreader
5.	1410 0030	2	Cup Backing Plate
6.	1440 0004	2	Piston Guide
7.	0502 5300	1	Connecting Rod
8.	0608 5300	1	Grease Fitting Safety Cover
9.	2405 0006	1	Grease Fitting Assembly
10.	5501 5330	1	Crankshaft Sub Assembly-includes Ref. # 14,13,& 11 with solid shaft
11.	1610 0007	1	Spline Key
12.	0200 5300C	2	Cylinder Head (cast iron)
13.	1720 0038	2	O-ring for cylinder head
14.	1720 0079	2	O-ring for cylinder sleeve
15.	3550 0019	2	Ni-Resist Cylinder Sleeve Assembly: no.3350 0018 X sleeve & no. 1830 0033 X retainer ring
16.	3400 0049	4	Unitized Valve: Consists of (A) 1720 0007 o-ring, (B) 3210 0015 valve seat (C) 3260 0002 valve poppet & (D) 1900 0030 valve spring
17.	0100 5300C	1	Body (cast iron)
18.	2130 0007	1	Bearing Shield
19.	2008 0001	2	Main Bearing (ball bearing)
20.	1810 0013	2	Bearing Retainer Ring (shaft)
21.	1820 0006	1	Bearing Retainer Ring (housing)

Please order replacement parts by PART NO. and DESCRIPTION.

DIAPHRAGM PUMP (D19GR) PARTS BREAKDOWN

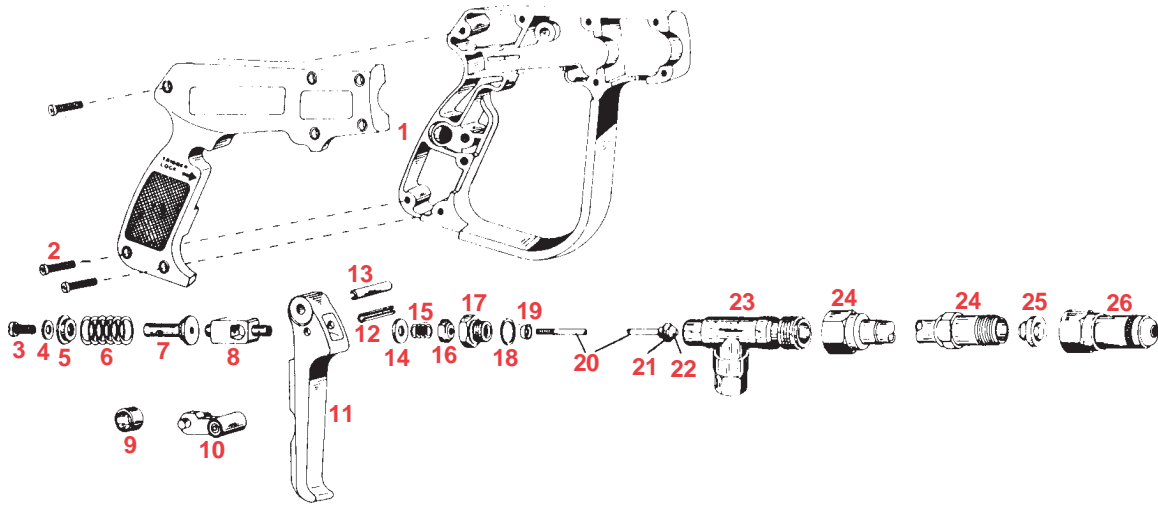


DIAPHRAGM PUMP (D19GR) PARTS LIST

REF. NO.	PART NO.	QTY. REQD	DESCRIPTION	REF. NO.	PART NO.	QTY. REQD	DESCRIPTION
1.	9910 800380	2	O-ring B, D	44.	9910 800480	1	Indicator Scale
2.	9910 800020	1	Front Housing	45.	9910 800440	1	Relief Valve Seat Holder
3.	9910 800171	1	Crankshaft for G.R. Version	46.	9910 800450	1	Tension Spring
4.	9910 800160	1	Spacer Washer	47.	9910 800460	1	Relief Valve Plunger
5.	9910 800150	2	Spring Locking Clip	48.	9910 800470	1	Adjustment Cap (Relief Valve)
6.	9910 800370	2	Retainer Knob	49.	9910 480550	1	Retainer Ring
7.	9910 800200	1	Seal	50.	9910 800010	1	Pump Body
8.	9910 800180	1	Roller Bearing	51.	9910 800330	1	Cap for Oil Sight Glass
9.	9910 800120	2	Piston	52.	9910 800190	1	Accumulator Diaphragm A
10.	9910 800140	2	Connecting Rod	53.	9910 800230	1	Accumulator Head
11.	9910 800130	2	Connecting Rod Pin	54.	9910 800650	1	Air Valve Assembly
12.	9910 480370	1	Roller Bearing	55.	9910 390340	1	O-ring B
13.	9910 480440	7	O-ring A, B, C	56.	9910 540290	4	Bolt (8MA x 35)
14.	9910 680360	1	Oil Tube Bolt	57.	9910 800210	2	O-ring A, B
15.	9910 800220	7	Head Bolt	58.	9910 800360	2	Valve Cap
16.	9910 800100	2	Head	59.	9910 800590	1	Key
17.	9910 800090	2	Diaphragm Retaining Bolt	60.	9910 800311	1	Base Plate
18.	9910 800350	2	Diaphragm Supporting Washer	61.	9910 809060	1	Complete Relief Valve Assembly
21.	9910 800085	2	Diaphragm A	63.	9910 809050	2	Complete Valve Assembly C
22.	9910 800110	2	Piston Sleeve	64.	-	2	Check Valve Cage (Inlet)
23.	9910 740290	1	O-ring B	65.	9910 800060	4	Poppet
24.	9910 800320	1	Oil Sight Glass	66.	-	4	Tension Spring
25.	9910 800520	2	Barb Nut	67.	-	2	Check Valve Seat
26.	9910 390180	1	O-ring B	68.	9910 200540	4	O-ring B, C
27.	9910 550450	1	Barb Nut	69.	-	2	Check Valve Cage (Outlet)
28.	9910 800340	1	5/8" Inlet Elbow Hose Barb	70.	9910 620301	2	Plug
29.	9910 800540	1	1/2" Outlet Hose Barb	71.	9910 390440	4	Nut
30.	9910 800400	1	Relief Valve Body (w/Valve Seat)	72.	9910 800280	1	Gear
31.	9910 550331	2	Lockwasher	73.	9910 800810	1	Driver Gear
32.	9910 800410	2	Bolt (6MA x 40)	74.	9910 800820	1	Body
34.	9910 800430	1	Floating Valve	75.	9910 800800	1	Locating Bolt
35.	9910 800500	1	Locking Bolt	76.	9910 480820	1	Seal D
36.	9910 800510	1	Locking Bolt Cap	77.	9910 620440	4	Bolt
37.	9910 390330	1	Locking Pin	Repair Kits			
38.	9910 800560	1	O-ring B	-	9910 KIT1923	-	Diaphragm Kit (items marked "A")
39.	9910 800490	1	Positioning Rod	-	9910 KIT1913	-	O-Ring Kit (items marked "B")
40.	9910 800530	1	3/8" Outlet Hose Barb	-	9910 KIT1914	-	Valve Kit (items marked "C")
41.	9910 800670	1	5/8" Bypass Barb	-	9910 KIT1950	-	Gear Box Seal Kit (items marked "D")
42.	9910 800680	1	Barb Nut				
43.	9910 770140	1	O-ring				

Please order replacement parts by PART NO. and DESCRIPTION.

SPRAY WAND PARTS BREAKDOWN



SPRAY WAND PARTS BREAKDOWN

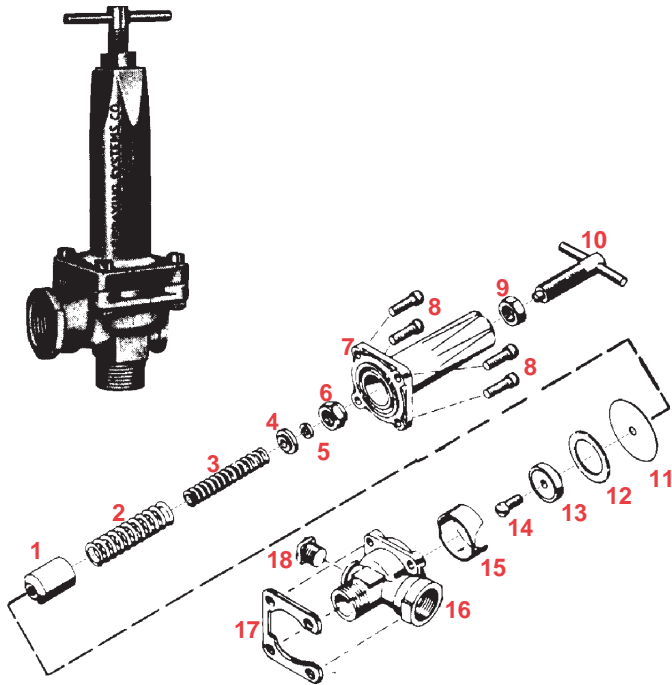
REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
1.	19684 1NYB	Housing Assembly	15.	7489 302SS	Trigger Stop Spring
2.	17013 1ZP	Screw	16.	7484INP	Stem Nut
3.	19818 1ZP	Screw	17.	19811	Packing Screw
4.	19819SS	Washer	18.	*19812AL	Gasket
5.	19816	Spring Retainer	19.	*14255 1BU	Packing Cup
6.	*22138 302SS	Spring	20.	22427 18SS	Stem 18"
7.	19815	Spring Guide	21.	7679 1	Stem Guide Nut
8.	19810	Trigger Guide	22.	*7678	Stem End
9.	19805DEL	Lock Spring Ring	23.	22136	Inlet Body
10.	19806FRP	Trigger Lock	24.	7715 18	18" Wand Extension
11.	17703FRP	Trigger	25.	*7490BRTF	Valve Seat sub-assembly
12.	19820 420SS	Roll Pin	26.	5500 6PP	Adjustable Tip (ordered separately)
13.	17720 420SS	Roll Pin			Not included with wand above.
14.	7622INP	#6 Burr			

AB30L

Parts Kit (includes all items with *)

Please order replacement parts by PART NO. and DESCRIPTION.

(8460) BYPASS VALVE PARTS BREAKDOWN

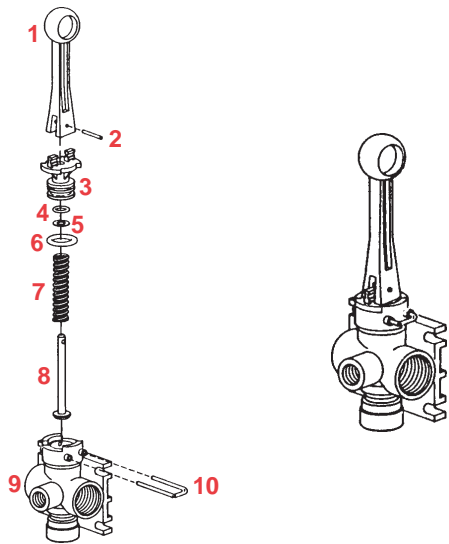


(8460) BYPASS VALVE PARTS LIST

REF. NO.	PART NO.	DESCRIPTION
1.	8367AL	Guide Sleeve, aluminum
* 2.	8373SS	Outside Spring, stainless steel
* 3.	8374SS	Inside Spring, stainless steel
4.	8371AL	Spring Retainer, aluminum
* 5.	8369NY	Washer, nylon
6.	8368SS	Adjusting Nut, stainless steel
7.	8362AL	Bonnet, aluminum
8.	7688ICP	Screw, steel cadmium plated (4 req'd.)
9.	5898AL	Lock Nut, aluminum
10.	5896ALSS	Adjusting Stem (sub. assembly)
* 11.	8366FA	Diaphragm, fairprene
12.	8365 304SS	Stop Spring, stainless steel, type 304
* 13.	8364NY	Back-up seat, nylon
14.	8477SS	Screw, stainless steel
15.	8389 304SS	Chamber Insert, ss, type 304
16.	8361 3/4NY	Body, nylon (for 8460 3/4)
17.	9017IZP	Clamp Plate, steel, zinc plated
18.	8400 1/4	Pipe Plug, nylon
AB8460		Repair Kit (includes items with *)

Please order replacement parts by PART NO. and DESCRIPTION.

(6B1) DIRECT-O-VALVE PARTS BREAKDOWN



(6B1) DIRECT-O- VALVE PARTS LIST

REF. NO.	PART NO.	DESCRIPTION
1.	36301NY	Handle (Nylon)
2.	36308SS	Groove Pin (Stainless Steel)
3.	36302PP	Body Insert (Polypropylene)
*4.	7717 2 108VI	O-ring (Viton)
5.	36307SS	Washer (Type 316, Stainless Steel)
*6.	7717 2 209VI	O-ring (Viton)
7.	36306SS	Spring (Type 316, Stainless Steel)
8.	36305	Stem (Stainless Steel & Polyethylene)
9.	36303PP	Body (Polypropylene)
10.	36309SS	Retaining Clip (Stainless Steel)
AB6B1		Spare Parts Kit (includes items with *)

Please order replacement parts by PART NO. and DESCRIPTION.

SPRAYER CALIBRATION PROCEDURES

NOTE: To avoid wind drift, use lower pressure and higher spray volume.

Guidelines For Sprayer Calibration

Before calibrating your sprayer, first determine whether each nozzle is delivering at a uniform rate. Place quart jars under all nozzles and watch as they fill up. The level should rise uniformly and take the same time (within 10%) for all nozzles to fill the jars. Replace any nozzle showing a discharge rate different from the others.

Calibrating the Sprayer

1. Mark off 660 feet (1/8 mile).
2. Fill the tank with water.
3. Set the sprayer to your desired operating pressure.
4. Turn the sprayer on and drive at the constant speed you will be spraying. Calibration on a road or unplowed field will give different results than on soft cultivated ground. **Note** tachometer reading so same speed can be maintained later.
5. Measure the amount of water it takes to refill the tank completely.

6. Calculate the amount applied:

$$\frac{\text{Number of gallons used} \times 66 \text{ (factor)}}{\text{Spray Swath in Feet}} = \frac{\text{Gallons applied}}{\text{per acre}}$$

Example: If 10 gallons are used in 660 feet and the spray swath is 40 feet, spraying rate is 16.5 gallons per acre.

$$\frac{10 \times 66}{40} = \frac{660}{40} \quad \text{or } 16.5 \text{ gallons per acre}$$

7. To calculate the amount of chemical to put in the tank:

$$\frac{\text{Sprayer Tank Size}}{\text{Desired GPA}} = \text{Acres covered} \quad \text{then;}$$

$$\frac{\text{Recom. amount of chemical}}{\text{per acre}} \times \frac{\text{Acres covered}}{\text{covered}} = \frac{\text{Amt. of chemical}}{\text{per tankful}}$$

Example: If a 500 gallon tank is used and 16.5 gallons per acre are applied, one tank will cover 30.3 acres. If three pounds of chemical are required per acre, then 90.0 pounds of chemical are required per tankful.

$$\frac{500}{16.5} = 30.3 \text{ acres covered} \quad \text{then;}$$

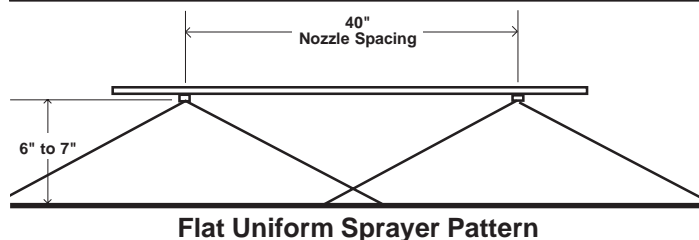
$$3 \text{ lbs. (gal.)} \times 30.3 = 90.0 \text{ lbs. (gal.) per tankful}$$

FLAT SPRAY NOZZLE FOR BROADCAST SPRAYING

Nozzle No.	Liquid Pressure In PSI.	Nozzle Capacity In GPM.	Gallons Per Acre Based on 20" Nozzle Spacing			
			4 MPH	5 MPH	7.5 MPH	10 MPH
8002	20	.14	10.5	8.4	5.6	4.2
	25	.16	11.8	9.4	6.3	4.7
	30	.17	12.9	10.3	6.9	5.2
	40	.20	14.8	11.8	7.9	5.9
8003	20	.21	15.7	12.6	8.4	6.3
	25	.24	17.6	14.1	9.4	7.1
	30	.26	19.0	15.4	10.3	7.7
	40	.30	22.0	17.8	11.8	8.9
8004	20	.28	21.0	16.8	11.2	8.4
	25	.32	24.0	18.7	12.5	9.4
	30	.35	26.0	21.0	13.7	10.3
	40	.40	30.0	24.0	15.8	11.9
8005	20	.35	26.0	21.0	14.0	10.5
	25	.40	29.0	23.0	15.7	11.7
	30	.43	32.0	26.0	17.2	12.9
	40	.50	37.0	30.0	19.8	14.9

FLOODJET TIPS FOR BROADCAST SPRAYING

Nozzle No.	Orifice Dia.	Liquid Pressure In PSI.	Capacity In GPM.	Gallons Per Acre				
				4 MPH	5 MPH	6 MPH	8 MPH	10 MPH
TKSS2	.046"	10	.20	7.4	6.0	4.9	3.7	3.0
		20	.28	10.5	8.4	6.9	5.2	4.2
		30	.35	12.9	10.3	8.7	6.5	5.2
		40	.40	14.8	11.8	9.9	7.5	5.9
TKSS2.5	.052"	10	.25	9.3	7.4	6.1	4.6	3.7
		20	.35	12.9	10.3	8.7	6.5	5.2
		30	.43	15.9	12.8	10.6	8.0	6.4
		40	.50	18.6	14.9	12.4	9.3	7.4
TKSS3	.057"	10	.30	11.1	8.9	7.5	5.6	4.5
		20	.42	15.7	12.6	10.4	7.8	6.3
		30	.52	19.3	15.4	12.8	9.7	7.7
		40	.60	22.0	17.8	14.8	11.2	8.9
TKSS4	.065"	10	.40	14.9	11.9	9.9	7.5	5.9
		20	.57	21.0	16.8	13.9	10.5	8.4
		30	.69	26.0	21.0	17.1	12.8	10.3
		40	.80	30.0	24.0	19.8	14.8	11.9
TKSS5	.073"	10	.50	18.6	14.9	12.4	9.3	7.4
		20	.71	27.0	21.0	17.6	13.1	10.7
		30	.87	33.0	26.0	21.7	16.1	13.1
		40	1.00	38.0	30.0	25.2	18.6	15.1
TKSS7.5	.091"	10	.75	28.0	22.0	18.7	14.0	11.1
		20	1.10	39.0	32.0	26.4	19.8	15.8
		30	1.30	49.0	39.0	31.9	24.1	19.3
		40	1.50	56.0	45.0	37.4	27.5	22.0



Floodjet tips are positioned as shown in the diagram by the chart below. When positioning the tip as shown in Figure A the tip can be operated closer to the ground, thereby reducing the chance of wind drift.

The chart below shows capacities in gallons per acre at various speeds and liquid pressures. Capacities are based on water at 70 degrees F. with nozzles spaced at 40 inches.

The rate chart is based on 40 inch row spacings. For other spacings of nozzles on the boom, multiply the tabulated GPA coverage by the conversion factors shown below.

Other Spacing	20	24	28	30	32	34	36	38	40	42	44
Conversion Factor	2	1.67	1.43	1.33	1.25	1.18	1.11	1.05	1.00	.95	.91

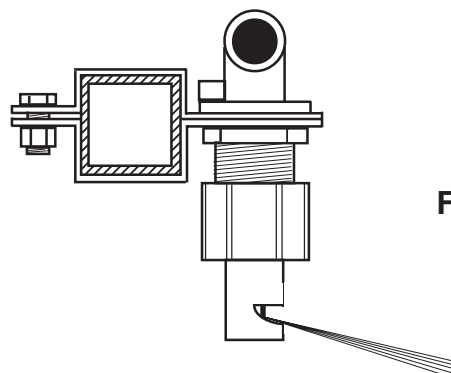


Figure A

SPRAYER CHECKLIST:

Downtime caused by field breakdowns is costly and time consuming. Many breakdowns can be eliminated by periodic equipment maintenance. By spending time reviewing this checklist before seasonal spraying application time and following proper after-season care, you can save time and money later.



WARNING: To Prevent Serious Injury Or Death

- ï Keep hands, feet, and loose clothing away from rotating parts.
- ï Wear protective clothing recommended by your chemical and fertilizer manufacturer when working with chemicals.

Check Before Going To The Field :

1. NOZZLES

Check tip for excessive wear by checking for grooves in or near tip opening. Check nozzle spacing by starting at center and working outwards. Check boom for proper height.

2. HOSES

Check all hoses for worn or soft spots. Be sure all hose clamps are tightened and hoses are not kinked or pinched. Check for leakage in any lines.

3. TANK

Remove and clean agitator orifices. Check orifices for excessive wear by checking for grooves in or near orifice opening. Inspect fitting and grommets to insure they are in good condition.

4. CONTROLS

Check for leakage, plugging, or wear on all valves, fittings, etc. Clean off any build up of foreign material.

5. PUMP

Check to be sure pump turns freely.

6. FRAME

Be sure all bolts are tightened.

7. REPLACEMENT PARTS

Replace all worn or damaged parts.

After Season Care:

NOTE: It is important to wear proper safety equipment when cleaning the sprayer. See your chemical or fertilizer package for this information.

1. After spraying chemicals, run water mixed with cleaners through tank, pump and all hose hookups. If wettable powder dries out in the system, it is very difficult to put back into suspension and can cause malfunction, damage or injury.
2. When cleaned, tank should have all openings closed or covered to keep dirt from entering.
3. Pump should be flushed with soluble oil and pump ports plugged to keep out moisture and air.
4. Disassemble tips and rinse with water or cleaning solution. (Appropriate for chemical sprayed).
5. Clean tip opening with a wooden toothpick. Never use wire or hard object that could distort opening.
6. Dispose of all unused chemicals or solutions in a proper and ecologically sound manner.
6. Water rinse and dry tips before storing.

NOTE: DETHMERS MANUFACTURING COMPANY does not and will not make any recommendations concerning application of various chemicals or solutions. These recommendations relate to either amount or procedure of materials applied. If you have any questions regarding application of certain chemicals or solutions, contact your chemical supplier and follow chemical manufacturer recommendations.



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